



## Calhoun: The NPS Institutional Archive DSpace Repository

---

Theses and Dissertations

1. Thesis and Dissertation Collection, all items

---

1987-12

# Excellence in Public Works Centers in the United States Navy.

Kistner, Mark Edward

---

<http://hdl.handle.net/10945/22793>

---

This publication is a work of the U.S. Government as defined in Title 17, United States Code, Section 101. Copyright protection is not available for this work in the United States.

*Downloaded from NPS Archive: Calhoun*



Calhoun is the Naval Postgraduate School's public access digital repository for research materials and institutional publications created by the NPS community.

Calhoun is named for Professor of Mathematics Guy K. Calhoun, NPS's first appointed -- and published -- scholarly author.

Dudley Knox Library / Naval Postgraduate School  
411 Dyer Road / 1 University Circle  
Monterey, California USA 93943

<http://www.nps.edu/library>



EDU 7  
7  
H. VINE ACADEMY HIGH SCHOOL  
MONTEREY, CALIFORNIA 93943-6002





# NAVAL POSTGRADUATE SCHOOL

## Monterey, California



# THESIS

K555

EXCELLENCE IN PUBLIC WORKS CENTERS  
IN THE  
UNITED STATES NAVY

by

Mark E. Kistner  
December 1987

Thesis Advisor:

Benjamin J. Roberts

Approved for public release; distribution is unlimited

T239035



## REPORT DOCUMENTATION PAGE

EPORT SECURITY CLASSIFICATION <b>UNCLASSIFIED</b>		1b RESTRICTIVE MARKINGS	
SECURITY CLASSIFICATION AUTHORITY		3 DISTRIBUTION/AVAILABILITY OF REPORT <b>Approved for public release; distribution is unlimited</b>	
DECLASSIFICATION/DOWNGRADING SCHEDULE			
PERFORMING ORGANIZATION REPORT NUMBER(S)		5 MONITORING ORGANIZATION REPORT NUMBER(S)	
NAME OF PERFORMING ORGANIZATION <b>Naval Postgraduate School</b>		6b OFFICE SYMBOL (If applicable) <b>Code 54</b>	7a NAME OF MONITORING ORGANIZATION <b>Naval Postgraduate School</b>
ADDRESS (City, State, and ZIP Code) <b>Monterey, California 93943-5000</b>		7b ADDRESS (City, State, and ZIP Code) <b>Monterey, California 93943-5000</b>	
NAME OF FUNDING/SPONSORING ORGANIZATION		8b. OFFICE SYMBOL (If applicable)	9 PROCUREMENT INSTRUMENT IDENTIFICATION NUMBER
ADDRESS (City, State, and ZIP Code)		10 SOURCE OF FUNDING NUMBERS	
		PROGRAM ELEMENT NO.	PROJECT NO
		TASK NO	WORK UNIT ACCESSION NO.
TITLE (Include Security Classification) <b>EXCELLENCE IN PUBLIC WORKS CENTERS IN THE UNITED STATES NAVY (UNCLASSIFIED)</b>			
PERSONAL AUTHOR(S) <b>Kistner, Mark E.</b>			
TYPE OF REPORT <b>Master's Thesis</b>		13b TIME COVERED FROM _____ TO _____	14 DATE OF REPORT (Year, Month, Day) <b>1987 December</b>
15 PAGE COUNT <b>78</b>			
SUPPLEMENTARY NOTATION			
COSATI CODES		18 SUBJECT TERMS (Continue on reverse if necessary and identify by block number) <b>Excellence; Management; Leadership; Public Works Center</b>	
ABSTRACT (Continue on reverse if necessary and identify by block number)  The purpose of this study was to identify the specific characteristics and qualities of the "Excellent" Public Works Centers (PWCs) in the United States Navy. The specific areas of interest were management style, staff, skills, strategy, structure, systems and the shared values of the excellent PWCs.  The study was conducted in two parts. The first part involved identifying, through interviews, what the perceptions of excellence were at the senior PWC command level (Naval Facilities Engineering Command / NAVFAC). NAVFAC provided input for four possible centers to study. The second part of the study involved analyzing the four PWCs identified. The analysis was performed via site visits to the four centers. The purpose of the site visits was to interview the key PWC organization personnel at each center.			
DISTRIBUTION/AVAILABILITY OF ABSTRACT <input checked="" type="checkbox"/> UNCLASSIFIED/UNLIMITED <input type="checkbox"/> SAME AS RPT <input type="checkbox"/> DTIC USERS		21. ABSTRACT SECURITY CLASSIFICATION <b>Unclassified</b>	
NAME OF RESPONSIBLE INDIVIDUAL <b>Prof. Benjamin J. Roberts</b>		22b TELEPHONE (Include Area Code) <b>(408) 646-2792</b>	22c OFFICE SYMBOL <b>Code 54 RO</b>

#19 - ABSTRACT - (CONTINUED)

This study is a summary of the indicators of excellence that were found at the PWCs studied.

Approved for public release; distribution is unlimited.

Excellence in Public Works Centers in the United States Navy

by

Mark Edward Kistner  
Lieutenant, Civil Engineer Corp, United States Navy  
B.S., Purdue University, 1982

Submitted in partial fulfillment of the  
requirements for the degree of

MASTER OF SCIENCE IN MANAGEMENT

from the

NAVAL POSTGRADUATE SCHOOL  
December 1987

*Thesis  
Topic*

## ABSTRACT

The purpose of this study was to identify the specific characteristics and qualities of the "Excellent" Public Works Centers (PWCs) in the United States Navy. The specific areas of interest were management style, staff, skills, strategy, structure, systems and the shared values of the excellent PWCs.

The study was conducted in two parts. The first part involved identifying, through interviews, what the perceptions of excellence were at the senior PWC command level (Naval Facilities Engineering Command / NAVFAC). NAVFAC provided input for four possible centers to study. The second part of the study involved analyzing the four PWCs identified. The analysis was performed via site visits to the four centers. The purpose of the site visits was to interview the key PWC organization personnel at each center.

This study is a summary of the indicators of excellence that were found at the PWCs studied.

## TABLE OF CONTENTS

I.	INTRODUCTION.....	8
II.	METHODOLOGY.....	13
A.	PART 1.....	14
B.	PART 2.....	15
C.	DEVELOPING THE INTERVIEW QUESTIONS.....	16
III.	THE VOICE FROM ON HIGH.....	23
A.	CHANGES IN THE PWC BUSINESS.....	23
1.	The Corporate Improvement Plan.....	24
B.	THE INTERVIEWS.....	26
C.	THE EVALUATION CRITERIA.....	27
D.	HOW TO DO IT.....	28
IV.	THE CHARACTERISTICS OF EXCELLENCE.....	30
A.	THE "EIGHT ATTRIBUTES OF EXCELLENCE" OF PWCS..	32
1.	"A bias for action".....	32
2.	"Close to the customer".....	32
3.	"Autonomy and entrepreneurship".....	34
4.	"Productivity through people".....	34
5.	"Hands-on, value driven".....	35
6.	"Stick to the knitting".....	36
7.	"Simple form, lean staff".....	36
8.	"Simultaneous loose-tight properties".....	37
B.	ADDITIONAL CHARACTERISTICS OF EXCELLENCE.....	37
1.	Management skill level and leadership.....	38
a.	Turnover.....	39
b.	Cost of living.....	39
c.	Training.....	39
2.	Communication.....	40
3.	Management Information Systems (MIS).....	40
4.	Looking on the outside.....	42

5. Facilities.....	42
6. Work Ethic.....	43
7. Excellence in resource management.....	44
V. CONCLUSION AND RECOMMENDATION.....	46
APPENDIX A PWC ORGANIZATION CHART.....	51
APPENDIX B PETERS AND WATERMAN'S INTERVIEW GUIDE.....	52
APPENDIX C CORPORATE IMPROVEMENT PLAN.....	55
APPENDIX D CUSTOMER EVALUATION FORM.....	71
LIST OF REFERENCES.....	76
INITIAL DISTRIBUTION LIST.....	78

#### ACKNOWLEDGEMENT

Numerous people have been a tremendous help in developing this thesis. First on my list of people to thank is my wife Dolores. Her support in this endeavor was a key factor in this project. Her dedication and belief in my abilities provided me with that extra push that I sometimes needed.

I thank all the Public Works Center Commanders and their staffs that participated in this study. The time that these people gave was crucial in doing this study and is very much appreciated. Also, the hospitality extended at all the centers certainly makes me proud to be part of the NAVFAC community.

I am grateful to my advisors for their guidance, advice and direction in conducting this study.

I am particularly thankful for Mr. Hammond's (NAVFAC Code 15A) support and assistance during this study.

Finally, I thank the Lord for keeping me going through all of my work on this study.

## I. INTRODUCTION

As part of my Master's program, I was given the opportunity to pursue an area of interest that I have had since my undergraduate years in Industrial Engineering at Purdue University. That area is excellence in management. Specifically, I addressed excellence in the Public Works Centers (PWC) of the Navy. I was concerned with excellence in a PWC because my next duty station is going to be a PWC, and it seemed prudent to find out what makes the "best" PWCs the best.

Let's look at what a Navy PWC is and is not. The PWC cannot be properly described simply by saying it is a large Public Works Department. A PWC is a large public works organization whose mission is to support both ashore and afloat commands within its geographic region. The PWC Statement of Purpose per the FY 88 PWC Corporate Improvement Plan is as follows:

Public Works Centers are committed to and accountable for providing responsive, reliable, high quality and cost-effective professional engineering and facility services to the operating forces, shore establishments, and other customers.

We are committed to providing flexible support, with the best mix of in-house and contract resources, to ensure the proper balance between cost and responsiveness.

We will accomplish our mission with a highly qualified and dedicated work force.

Our "bottom line" is to be the premiere performers of facilities services, so that our customers will freely choose PWCs to perform these services over any alternative providers. (Ref. 1:p."i")

In carrying out their mission, PWCs provide for:

1. Public Works type engineering and planning, consultant and support services.
2. Inspection of facilities and public utilities.

3. Recurring and specific maintenance, repair and minor construction of facilities.
4. Transportation equipment.
5. Public utilities.
6. Administer and maintain Navy family housing.

Why are there PWCs? Soon after WW II the Navy began to see the benefit of consolidating many smaller PW organizations in certain geographical areas of high concentration of Navy activities. There was a lot of duplicated effort on the part of each of the smaller PW activities at that time in these areas. On the approval of the Office of the Secretary of Defense these smaller PW organizations were consolidated into PWCs. The nine existing PWCs are located in Great Lakes, IL, Norfolk VA, Pensacola, FL, San Francisco Bay-Oakland, CA, San Diego, CA, Pearl Harbor, HI, Subic Bay, RP, Yokosuka, JA, and Guam, MI. (Ref. 2: pp. 66-68)

PWCs have a Commanding Officer that reports to the Naval Base Commander in the area they are assigned (i.e., PWC San Diego reports to Commander Naval Base San Diego). PWCs are self-supporting commands that provide goods and services to their customers on a cost reimbursable basis. Customers of the PWCs are the various activities of the Federal Government that are located in the PWC's area of responsibility. Customers have regulated control over their own funds. Customers will make daily buying decisions for the services required to best support their own missions. There can be several hundred customers assigned to each PWC for service. For FY 87 all nine PWCs together had revenues of approximately \$1.1 billion.

PWCs are manned primarily by a Federal Civil Service work force. Overseas PWCs will also hire foreign national employees. The nine PWCs currently employ approximately 14,000 personnel. The size of each PWC depends primarily on

the geographic requirements of the particular PWC. The smallest PWC has approximately 600 employed and the largest PWC having approximately 4000. The PWC command has from 10 - 15 officers. A PWC organization chart is shown in Appendix A.

All PWCs, with the exception of PWC Yokosuka, Japan, are Navy Industrial Fund (NIF) activities. Instead of receiving an annual budget appropriation, they have been given sufficient capital to pay for daily operating expenses until revenue can be generated by billing customers for services. A standard commercial accounting system is used, and financial management of the PWC is similar to other commercial businesses.

The corporate management policies are issued by the Naval Facilities Engineering Command (NAVFAC) headquarters. These policies identify the mission and functions of the PWCs. With NAVFAC acting as corporate headquarters, PWCs are now treated very much like a corporate business. Their likeness to a corporate business in terms of a charter is stated in their Statement of Purpose (Ref. 1:p."i"). In an economic sense the PWCs want to provide the most cost effective product that meets the customers needs. This method of operation provides standardized goals and common objectives while enabling each PWC to remain autonomous and independent. PWC performance is monitored at corporate headquarters NAVFAC. The method of monitoring PWC performance is both analytical and subjective. A discussion of measurement is provided in Chapter III—The Voice From on High.

Now that we have a basic understanding of what a PWC is in the Navy, let us now go back to the concept of excellence. The definition of excellence as taken from the American Heritage Dictionary: "Excellence; The quality or

condition of being excellent. Excellent is defined as; The highest or finest quality; exceptionally good."

If you go to the library and perform even a basic literature search you will find numerous books, studies, seminars, symposiums, magazine articles, and thesis done on some aspect of management excellence. The sources that were used and how they were used is discussed in Chapter II—Methodology. Generally, the sources provided guidance on what to look for in terms of excellence in organizational management and leadership in the public sector.

To seek out this concept of excellence, within the Navy's PWCs, I went to the Civil Engineer Corp (CEC) executive leadership. My desire was to learn what they felt constituted excellence in the Navy's PWCs. Although, there was a variety of key elements and different concerns regarding "the best way a PWC should be run" the picture of excellence in PWCs is certainly clear at the NAVFAC level. NAVFAC identified four PWCs that should be studied.

With my own perceptions of excellence in management and leadership, and armed with the perceptions of excellence in PWCs from the NAVFAC level, I was ready to visit the four PWCs identified. My goal was to identify the unique characteristics that set the excellent PWCs off from the rest. A secondary question was how excellence in PWCs is reflected in better resource allocation and management?

It is important for the reader to understand that this thesis is not a cook-book on how PWCs should be run. It is in fact an effort to identify certain elements of the management and organization of what is considered to be the excellent PWCs. Hopefully, this thesis it will provide a spring board for those in PWC organizations to develop possible improvements in their own organizations.

In the next chapter I explain my methodology for approaching this challenging task. In the remaining chapters I summarize the interviews of the numerous personnel that were interviewed at the four PWCs and NAVFAC headquarters. I then identify those elements observed that sets excellent PWCs apart from the others. Finally, I discuss my conclusions and recommendations from this analysis of excellence in Public Works Centers in the United States Navy.

## II. METHODOLOGY

In 1982 my interest in excellence in management was stimulated by the best seller In Search Of Excellence, Lessons From America's Best Run Companies by Thomas J. Peters and Robert H. Waterman, Jr. In their study of some 21 U.S. corporations the authors found the top performing corporations studied possessed certain common identifiable characteristics. They labeled these characteristics "The eight attributes of excellence." (Ref. 3: pp.13-19) My methodology also defines the attributes of excellent PWCs.

In determining which corporations to study the authors chose six measures of long-term superiority. The six measures were: Compound asset growth, compound equity growth, the average ratio of market value to book value, average return on total capital, average return on equity and average return on sales. These six measures were compared over the period from 1961-1980. For a company to qualify, to be studied, it must have been in the top half of its industry in at least four out of six of these measures over the full twenty-year period. (Ref. 3: pp.22-23)

The Peters and Waterman method of determining which companies to study was not used to determine which PWCs to study. Excellence in terms of the six measures of long-term superiority, as discussed earlier, are not readily applicable to the PWCs of the Navy. In a NIF activity the specific profit motive is zero profit. The goal is to match revenues to expenses, dollar for dollar (i.e., no profit). The determination of which PWCs were considered to be "excellent" came from NAVFAC. NAVFAC identified two excellent PWCs and two control PWCs that were studied.

Part one of my analysis was to determine what NAVFAC's perception of excellence is PWCs was. I also wanted to determine which PWCs NAVFAC considered excellent. Part two of my analysis was to determine, through actual visits to the four PWCs and interviewing key PWC personnel what were the characteristics of the excellent PWCs.

#### A. PART 1

Part 1 of my efforts involved determining, through the executives at NAVFAC, the answers to the following questions:

1. What is the corporate definition of excellence in Public Works Centers?
2. How are PWCs evaluated? How is excellence in PWCs determined?
3. When you visit a PWC, what characteristics indicate to you that this is, or is not, an excellent PWC?
4. What are the most important characteristics of the excellent PWCs?
5. How long have the excellent PWCs been considered excellent?
6. If you were to rank the PWCs, in terms of excellence, how would they rank?
7. How are the excellent PWCs remaining excellent?
8. What are the strengths and weaknesses of those PWCs that are not excellent?
9. What are the weaknesses of the excellence PWCs?
10. How is excellence in PWCs reflected in better resource allocation and management?

Once I had the perceptions of excellence at the NAVFAC level as well as what were considered to be the excellent PWCs, I proceeded to part 2 of the analysis.

The data that were collected during the interviews of Part 1 was the basis of identifying the perceptions of excellence in PWCs at the NAVFAC level. The results are found in Chapter III—The Voice From on High.

## B. PART 2

Part two of the study was the actual determination of what, if any, were the unique characteristics of the excellent PWCs. This part involved the actual site visits to four PWCs identified in Part 1. Two PWCs visited were excellent PWCs, by NAVFAC standards, the other two visited were used as a control to evaluate whether the characteristics identified in the excellent PWCs were in fact unique.

Prior to my arrival each command was briefed as to the purpose of my visit and my thesis. Each visit involved a minimum of two days study. During that period I interviewed each of the following personnel for approximately one hour:

1. Commanding Officer
2. Executive Officer
3. Business Manager
4. Production Officer
5. Senior Activity Civil Engineer
6. 1 - Staff Civil Engineer
7. Planning Department Head
8. Maintenance Department Head
9. Utilities Department Head
10. Work Load Management Department Head
11. Misc.

During each interview I explained: The purpose of my thesis. The seven areas of specific interest as discussed in section "C" of this chapter. And finally, that total anonymity for the person interviewed would be maintained. I

asked the individuals being interviewed if they would mind if I used a tape recorder during the interview. Only one individual objected. The tapes allowed me to accurately record the comments of the individuals interviewed.

The results of the data collected during the actual PWC site visits are found in Chapter IV--The Characteristics of Excellence.

#### C. DEVELOPING THE INTERVIEW QUESTIONS.

Peters and Waterman used the "McKinsey Seven S" framework as the basic structuring device for their interviews. Appendix B is the first three pages of the document used by the authors in their interviewing process. The "7-S" framework, as shown in Figure 2.1, addresses seven aspects of an organization that, the authors felt, impact strongly the capability of companies to develop and sustain competitiveness in their industry. (Ref. 3: pp.9-11)

As a concise definition of each of the seven variables the following is provided:

- \* Structure: How the organization is set up in terms of a tree diagram. What are the key levels of management.
- \* Systems: What type of management information systems does the organization use in the performance of the day-to-day tasks.
- \* Style: The management style of personnel (i.e., Theory X,Y,Z or some other method or style). How people within the organization interact.

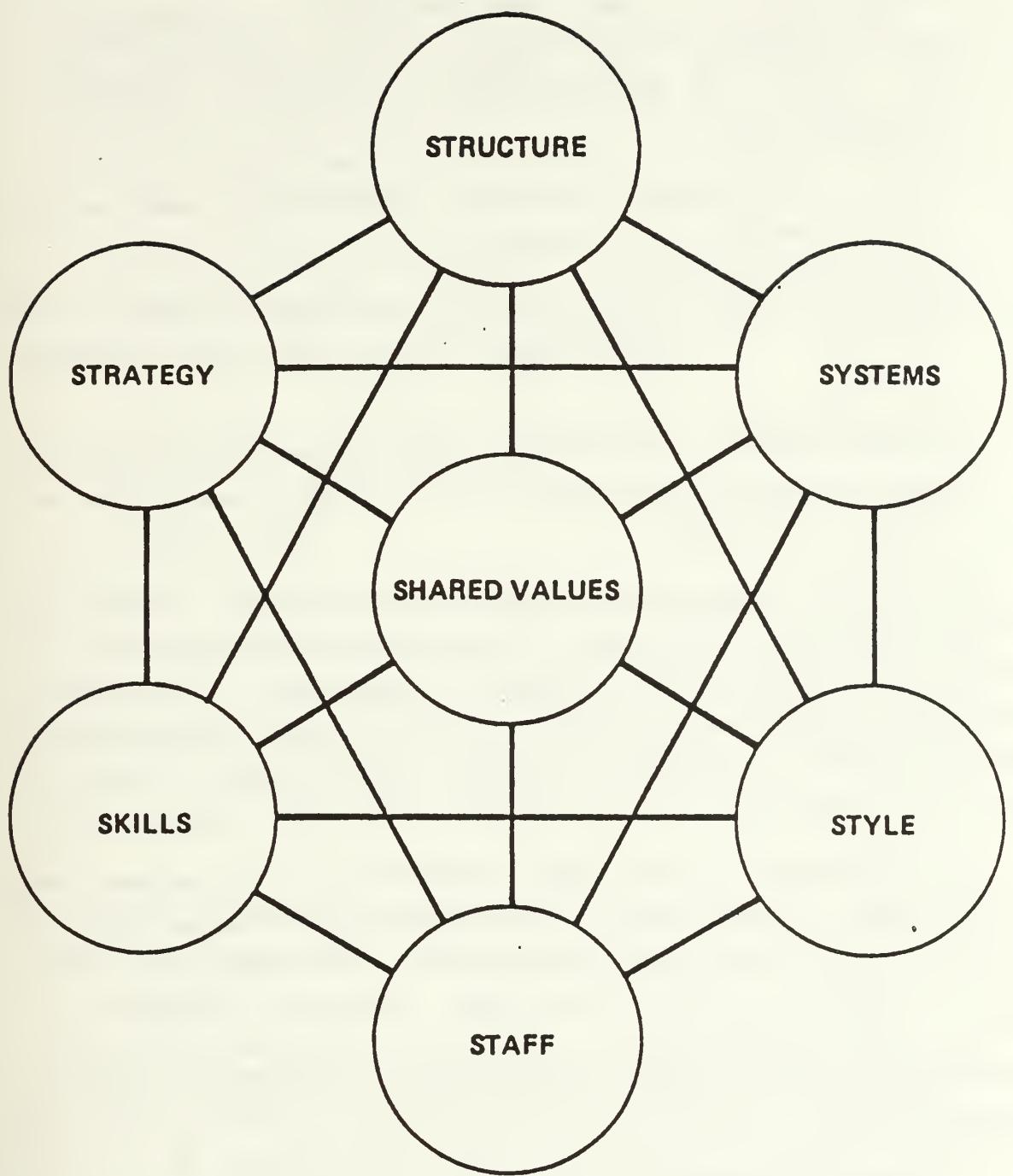


Figure 2.1 "The McKinsey Seven S Framework"

- \* Staff: The organizational makeup of the personnel in terms of: Which positions are filled by civilians versus officers. What are the levels of seniority of the key management personnel (i.e., GS level and rank). The type of professional background management personnel have.
- \* Skills: The specific education, experience, and talents that key management personnel have.
- \* Strategy: The method by which the executives handle the business. How management works with the planning horizon.
- \* Shared Values: The "underpinning" of the organizations. What personnel throughout the organization hold as beliefs or values.

To organize the collection of data in Part 2, I used the McKinsey Seven S" framework. It provided a useful device to focus my research and interview process. The seven variables, previously defined, provided the direction for the development of the questions for the interviews with the executive leadership of each of Navy PWCs that were visited.

In developing the specific questions for the interviews at the PWCs, I found Creating Excellence by Craig R. Hickman and Michael A. Silva to be very helpful. The book identifies crucial skills for executives which they call "Skills for New Age Executives." These skills / characteristics which provided me with further guidance in developing interview questions are:

1. "Creative insight: Asking the right questions." The key here is focusing at the heart of problems and not just at the visible symptoms. Executives lacking

- . insight see either the forest or the trees, but never both.
- 2. "Sensitivity: Doing unto others." People are an organization's most important asset. With this in mind executives must learn how to bind people together in a culture where they feel motivated to perform at their greatest potential.
- 3. "Vision: Creating the future." Executives must develop a clear vision of the journey from the present situation to the future possibilities.
- 4. "Versatility: Anticipating change." Not only having the ability to fight fires but also being able to anticipate change and deal with future circumstances in the present.
- 5. "Focus: Implementing change." Everything that happens in an organization either contributes to or erodes its efforts to implement change and keep strategy and culture in harmony. Leaders with focus are able to invest available resources toward implementing successful and lasting change.
- 6. "Patience: Living in the long term." Management must rise above the thoughts and acts that do not take into consideration the long-term perspectives of their enterprises. (Ref. 4: pp. 30-34)

I used these six characteristics to develop questions which might identify differences in executive skills among the PWCs. My thought was that the excellent PWC executives would have more of these qualities than the control PWCs.

Another source I found useful was Managing for Excellence, The Guide to Developing High Performance in

Contemporary Organizations by David L. Bradford and Allen R. Cohen. In their book they develop six paradoxes which also aided my search of the best possible interview questions to ask. Those paradoxes are:

- Paradox 1. The manager has to be, on the one hand, quite active yet also has to back away from feeling solely responsible for solving all problems and managing the organization. The manager's hard work and initiatives are directed at seeing that the real issues are raised, arguments are joined, and commitments are made. Significant effort is required of the manager to develop individuals and groups so that they can perform well in solving the problems and in sharing in the management of the unit.
- Paradox 2. The manager must give greater autonomy to subordinates while establishing effective controls. Managers must loosen the reins on problem solving, task assignment, and meeting agendas. The loss of manager type control is balanced by the increased controls that evolve when all subordinates are personally committed to the overall organizational success.
- PARADOX 3. Managers increase their own power by giving subordinates greater power. Power enhancement will provide subordinates with a feeling of commitment to the departmental goals. They are not only more motivated but are also more willing to be influenced by their peers and by their supervisors.
- PARADOX 4. The manager builds a team as a way to support member individuality. Groups can be very dangerous forces in terms of conformity to a single

thought and behavior type. A collaborative team is a cohesive but consensual group where individual differences are valued and supported. This type of team has trust and everybody is committed to the same goals.

- PARADOX 5. The manager must have an optimistic faith in their subordinates possibilities. At the same time they must provide tough direction towards work and in setting standards. This work ethic is based on the idea that everyone wants to do well and that people are not basically empire-builders. The manager must also maintain accountability for the subordinates work.
- PARADOX 6. The manager must focus on the needs of others, rather than on themselves. (Ref. 5: pp. 282-289)

The questions developed from this source were to evaluate differences in managers style of management. I was trying to see if a specific style of management tended to be dominant at the excellent PWCs.

William G. Ouchis' book Theory Z How American Business Can Meet the Japanese Challenge provided an excellent culture guideline. Based on the Intel Corporation Informal Culture expectations the following is provided :

- A Corporate objective is to be recognized as the best in our field in technology and business.
- Innovativeness and creativity are stressed in their approach to business.
- They are sensitive to their image with their customers.

- Management is self critical. The leaders must be capable of recognizing , accepting, and learning from their mistakes.
- Open constructive confrontation is encouraged at all levels of the organization. This attitude is viewed as a method of problem solving and conflict resolution.
- Decisions are encouraged to be made at the lowest level in the organization.
- A highly communicative and open management is part of the style. Managers are accessible.
- All levels of the organization must perform in an ethical manner.
- Team objectives take precedence over individuals objectives. (Ref 6: pp. 250-254)

The element I was trying to identify was whether or not there was a difference in team work among PWC workers at the excellent PWCs versus the control PWCs. I was also interested in whether or not the PWC employees had a feeling of being a part of the center. I was curious as to how individuals felt about their role in the PWC and were they proud to be a part of the center. Basically, I was trying to establish what cultural differences exist that might effect the success of a PWC.

After the questions were developed the actual site visits commenced. The following two chapters will relay what was found at NAVFAC and the four PWCs that were visited.

### III. THE VOICE FROM ON HIGH

This chapter focuses on the perceptions of excellence at the NAVFAC level. I first provide some history regarding the recent changes that have taken place in the PWC corporate organization. I then provide the specific characteristics of excellence that were identified by the NAVFAC personnel interviewed. I also provide the evaluation criteria that NAVFAC will be using to determine the status of excellence at PWCs. Finally, I provide one Admiral's perception of how a PWC can be made into an excellent PWC.

#### A. CHANGES IN THE PWC BUSINESS

From discussions with NAVFAC PWC personnel, I found the following: Prior to 1983 NAVFAC ran the PWC business with a rather centralized and tight rein. The basic idea was that all PWCs were to look, run, and act alike. Around 1983 the dissatisfaction of some high level PWC customers came to a head. The basic dissatisfaction was that PWCs were not customer-oriented in terms of cost, communication, or planning. What customer Commanding Officers were telling the Pentagon OP-04 was that they wanted their Public Works Departments (PWD) back. The PWD under the customer commanding officers could provide better response but at a substantially higher cost. After several high level meetings the outcome was that the PWCs were going to have to make some major organizational changes to bring about an acceptable public works organization.

Finally, in December 1986 the Secretary of the Navy approved what is now called the PWC Corporate Improvement Plan. The first edition of the plan identified the new command relationship of each PWC falling under the command

of a naval base commander or other appropriate area commander. The plan also provided the criteria to be used to improve PWC accountability at the local level and enhance the support of the Fleet and Navy families. Because of the highly competitive business environment of the PWCs, this plan was necessary to bring about the changes necessary to properly allocate resources in order to achieve the maximum return on investment. The essence of the PWC credo is summed up in two sentences:

As service organizations, PWCs must be sensitive to the customer's needs. We must continuously maintain a strong customer orientation and insure that our internal processes and procedures are fully responsive to the needs of our customers. (Ref. 1:p"ii")

#### 1. The Corporate Improvement Plan

The Corporate Improvement Plan focuses on three broad topics: Competitiveness, customer-oriented business strategy, and acquisition strategy. Within each of these topics there are goals which are summarized in the following:

- "By 1991, achieve and demonstrate overall competitive superiority with public and private sources of facility services.
- By October 1989, reduce customer billings through direct labor productivity increase of 25 percent, with commensurate overhead reductions.
- By January 1990, reduce cost of maintenance and repair services by 25 percent without reducing quality.
- By October 1990, complete 80 percent of all facilities maintenance and alteration jobs within 90 days without reducing quality.

- o By October 1990, have in place an information management system that provides competitive advantage.
- o By December 1990, PWCs will be self-contained business entities to accomplish their mission and will refine their product lines.
- o By March 1990 develop comprehensive, five-year facility support plans for other than major Navy customers.
- o By March 1989, develop and execute a multi-year strategy to reduce cost of operation and maintenance of transportation equipment and real property for PWC customers through an aggressive program of cost comparisons of in-house vs contract accomplishments.
- o By March 1991, reduce by 25 percent, using FY-85 baseline, the time between the customer approval of the contract package and the contractor starting work, through in-house efficiencies and statutory and regulatory changes.
- o By October 1989, using FY-85 baseline, achieve a 25 percent improvement in quality of contracts, contractors and contractor performance." (Ref. 9:p.8)

For the readers information, and because of the unique customer-oriented basis, the PWC Corporate Improvement Plan is reproduced in Appendix C.

With an idea of some of the history of the changes in the way PWCs do business, and what the corporate goals and objectives are, we now look at what NAVFAC said about this concept of excellence in PWCs.

## B. THE INTERVIEWS

This part of the chapter identifies the characteristics that were identified by NAVFAC as the elements that can make the difference between an excellent PWC and a control PWC. As stated earlier this concept of excellence in PWCs is very clear at the NAVFAC level. As provided by one senior NAVFAC individual:

PWCs are a service organization. What I am looking for in an excellent PWC is one that has a reputation of being excellent with its customers. It is the customers perception of what they are getting from the PWC that is really the only valid measure of excellence.

The identified elements of an excellent PWC organization provided by two senior NAVFAC PWC personnel were:

- From the customer perspective excellence is when the PWC is responding to the customers' needs in accordance with the customers' determination of priority.
- The better the quality and stability of the work force the easier it will be for a PWC to be excellent.
- The better the work ethic in terms of employees being self motivated to do a good job the more likely the PWC will be successful.
- Developing "Innovation where it counts. "Automating shop operations which impact directly on productivity.
- Being the best tends to establish a certain amount of pride within an organization that tends to set the overall standard of performance.
- All PWC personnel, from the top down to the last man, must understand what it is the PWC is trying to do as a corporation; cut costs, improve productivity, improve responsiveness, and satisfy the customer. All hands

must be motivated to relate their own performance to contribute toward these corporate objectives.

- The chain-of-command must recognize the efforts of those that relate their performance to the objectives of reducing cost and satisfying the customer. The chain-of-command must show that they care.
- Management must identify the impediments within their own organization that prevent people from relating their performance to these objectives and create an environment that will enhance the meeting of these objectives.
- In essence the whole organization must be "energized into the coherent whole that the corporation is after, cost effective customer satisfaction.

#### C. THE EVALUATION CRITERIA

In terms of the analytical side of the evaluation of excellence, NAVFAC looks at five internal performance indicators as well as a 10 question evaluation of the PWC answered by the customers. A sample customer evaluation is provided in Appendix D. The internal performance indicators are as follows:

1. Emergency, service and minor work average response time.
2. Specific work average response time.
3. Construction contract average response time.
4. Transportation maintenance cost per mile.
5. Transportation down-time percentage.

In addition to the internal performance indicators and the customer evaluations initiated at the PWC level, the

NAVFAC PWC director contacts the base commanders that PWCs report to. This communication provides a first hand indication of just how well PWCs are performing.

In this evaluation process NAVFAC is not interested in lining up the PWCs in a first to last order. What is of major concern to NAVFAC is what is termed a "going up and to the right" or an incremental annual improvement from the previous year in all PWCs. This improvement is in terms of productivity, responsiveness, and customer satisfaction.

#### D. HOW TO DO IT

I now describe what one senior NAVFAC individual indicated would be a method by which he would establish this top-down instilling of the objectives of cutting costs, improving productivity, improving responsiveness, and providing customer satisfaction.

First the C.O. is Mr. outside and the X.O. is Mr. inside, and that is the division of labor. The C.O.'s primary focus has to be in the customer relations area. He has to be out continuously working the customers, hopefully at the customer C.O. level and the Staff Civil Engineer level. He is the eyes and ears of his organization. He needs that continuous input to tell him where the problems are and to give him feedback on areas that need improvement. This contact will also let the customers know that this is an organization that cares about what the customer thinks....

Internal to the organization the C.O. needs to create the conditions which allow each individual, whatever their skills and abilities, to make the maximum contribution. How do you do that? The C.O. has to be the head communicator.... He is the link between the corporate board level and the individual at the PWC. He has to be able to communicate the aspects of the corporate objectives in terms that can be understood, in terms that the organization can relate to, and in terms that help them define their individual actions in how they relate toward the corporate objectives. He has to be sensitive to the resources issue to make sure that his workers have what they need to be productive.... He needs to create an atmosphere in which good ideas from the people are freely expressed and bubble up so that at least peoples' ideas get a chance to be heard.

It is assessing customer relations and then creating an internal environment where each individual is in the best possible position to make the maximum contribution. Energize the organization. He can't begin to do it all

himself. He has to work on whatever is necessary to energize the organization.... Part of his communication needs to be direct. You have to use the chain-of-command, that is a given. You also need some opportunities for direct communication. The direct communication will give you a chance to evaluate if this is working or not, and are PWC personnel are the word, do they understand what we are trying to do. What does this argue for? Maybe it argues for the C.O. going out into the shops and having a quick meeting with some of the workers.... He needs to close the communication loop to determine if what he has put out at the top reached the bottom... Every piece of feedback from the bottom is very valuable....

There you have it, the perception of excellence in PWCs from top side. If I were to put in a single statement the corporate objective of the PWC services it would be: To provide prudent, cost effective customer satisfaction.

The next chapter provides the characteristics of excellence observed that separated the excellent PWCs from the control PWCs. Those involved with PWC organizations might find Chapter IV simply a restatement of what they have always considered to be characteristics of excellence in a PWC. On the other hand, I hope some light has been shed in some areas that PWC executives previously had not considered. Part of the purpose of this thesis is to provide a springboard for PWC management to develop excellence in their own organization.

#### IV. THE CHARACTERISTICS OF EXCELLENCE

The most enjoyable part of this thesis was the actual visits to the PWCs. Until I had actually completed all the visits, I was apprehensive as to what the analysis of the interviews would hold. I had a general impression of what some of the unique characteristics of the excellent PWCs were, but after so many hours of interviews some of the issues were running together. After listening to the tapes a second time, and in some cases a third, there came to the surface some specific characteristics that separated the excellent PWCs from the control PWCs. In discussing the characteristics of excellence in PWCs, I am first going to compare the eight attributes of excellence found in the companies studied by Peters and Waterman with the characteristics which I observed in the excellent PWCs. After this comparative analysis I discuss the characteristics which do not fit into any of the eight attributes that Peters and Waterman used. The specific attributes that Peters and Waterman found to characterize the "Excellent" companies that they studied were as follows:

1. "A Bias for action...." This attribute is one of trying different methods or systems despite the lack of analytical support. A type of attitude of "we won't know until we try."
2. "Close to the customer...." The attitude of these companies is that the customer is why we are here. They want to provide the best quality at the best possible price. Service to the customer might be the company slogan.

3. "Autonomy and entrepreneurship...." These companies want to provide just enough rein for employees so that do not cut off any creativity. Innovation is a key word within these organizations and they will do almost anything to foster creative innovation.
4. "Productivity through people...." The excellent companies consider the rank and file to be a root source of quality and productivity innovations. The organization has respect for the individual at all levels of the organization.
5. "Hands-on, value driven...." The senior executives are out and about. The executive management are out and among the people and the problems that effect the various levels of the organization. They are not micro-managing but they are managing by walking around.
6. "Stick to the knitting...." The company stays reasonably close to the business that they know and rarely ever leaves this base.
7. "Simple form, lean staff...." The underlying organization with all its structural forms and systems is basically simple. Top level staffs are generally rather lean, and the number of levels within the organization is kept to the bare minimum.
8. "Simultaneous loose-tight properties...." The excellent companies have both centralized and decentralized aspects of the organization. Autonomy is always pushed down to the lowest possible level. On the other hand the organization is very centralized in some of the basic or core values to which the organization holds onto. (Ref. 3: pp.13-17)

## A. THE "EIGHT ATTRIBUTES OF EXCELLENCE" OF PWCs

In my search for excellence in PWCs it was both interesting and exciting to find many of the same attributes that Peters and Waterman found in the excellent companies. Below I compare what I found in the Navy's PWCs to what Peters and Waterman found. The comments that are made as well as the specific quotes are based on the analysis of the almost fifty hours of interviews conducted at the four PWCs mentioned in the discussion of my methodology.

### 1. "A bias for action...."

All the PWCs are now in this mode of trying things, or have this bias for action. The length of time and the intensity to which this attitude exists is what separates the excellent PWCs from the others. Those PWCs that are classified as excellent, by NAVFAC, seemed to have been trying innovative systems and controls in the area of productivity improvement for a longer period of time than the other PWCs. NAVFAC indicated, and I observed, that the excellent PWCs have an attitude that they are the best and that, along with this attitude, they feel compeled to develop innovative systems. Some Comments that I heard about the excellent PWCs from customers and NAVFAC were:

They seem to have creativity in style and technique of running the business.

Yes they are trying new things, but they drop or change the new system that is not working.

The excellent PWCs challenge the system more. They are more aggressive in trying new things, smart things.

### 2. "Close to the customer...."

PWCs are doing a variety things to get close to their customers. I found without question that the customer is starting to gain a new respect and confidence in the PWCs that are serving them. Customer are not completely satisfied with the PWC, but they realize the nature of the business

will never allow complete satisfaction. All the PWCs are very innovative in their methods of trying to educate the customers and bring them into a closer relationship with their PWC. One comment I heard from a customer about an excellent PWC was:

They have a recognition of what the PWC business is to the customer.

Although all PWCs are improving on service to the external customer, the excellent PWCs are doing a better job of serving their internal customers. The internal customers are the various PWC departments that are serviced by the various staff departments such as Management, Civilian Personnel, and Comptroller Departments. The interviews indicate that the excellent PWCs have done a better job of instilling the same "service to the customer" attitude within their own internal staff departments. There were indications that certain staff departments, within the control PWCs, do not have the same appreciation of the importance of service to other PWC departments that the PWC has regarding the PWCs customers. Those interviewed at the control PWCs stated that these staff organizations tended to service their own needs with little or no concern for the needs of those which they are supposed to serve. Specifically, one control PWC had a Management Department in which several department heads had little confidence. Comments that I received were that the department heads would rather do certain staff work by using their own people. The department heads did not have confidence in the end product that would be produced by the staff organization in terms of content nor timeliness. This staff work is a level of effort that, according to one senior executive at the PWC, should be expected of the Management Department. The department heads indicated their lack of confidence was

due to the lack of management analysis skills available in the Management Department. Although generally quite capable, the personnel did not possess the management analysis skills necessary to service other departments. Because of this lack of technical skill the department was performing mostly repetitive daily tasks, with only a small fraction of the staff time spent on actual management analysis. Several department heads were unaware of precisely just what the management department staff was capable of or what service was to be provided by this department.

### 3. "Autonomy and Entrepreneurship...."

Generally it appears that this concept of autonomy carries through in all PWCs. Senior managers are allowing the decisions be made at the lowest level, yet providing some controls. Comments I did hear regarding general management was that both productivity and moral was effected, in a negative sense, whenever the manager was a micro-manager.

In terms of innovation and entrepreneurship, I really did not see this aspect in any of the PWCs that I visited. What I did see in the excellent PWCs was a fostering or encouraging of creative innovation in the areas of management and shop labor productivity. This encouragement was primarily in the form of financial recognition for the individual innovator(s) on a one time basis. In one case an ongoing financial reimbursement, similar to a profit sharing plan, was being discussed for possible implementation in a shop productivity improvement program. This type of incentive for productivity was indicated to be a crucial method in developing innovative ideas at the shop level.

### 4. "Productivity through people...."

Peters and Waterman found that the excellent companies consider the rank and file to be the root source

of quality and productivity innovations. I observed that all the PWCs have a strong appreciation of the rank and file in terms of their ability to develop innovative ideas. The difference observed was that the excellent PWCs are providing more aggressive incentives to foster these innovations such as the profit sharing plan previously discussed. It can be difficult to convince a shop worker to come up with innovative ideas that may delete his overtime pay or cause a fellow worker to be laid off. Sharing financially in the productivity improvement on a continuing basis can provide the incentive to provide ideas that will effectively reduce costs. Because of the PWCs competitive position in relation to outside contractors, PWCs are having to develop better ways of doing the business. The excellent PWCs have developed better productivity improvements through developing a closer relationship between the shops personnel and management. There is now a better understanding of the fact that for the PWCs to stay competitive both management and shop personnel are going to have to work together in developing the most effective way of running the PWC.

##### 5. "Hands-on, value driven...."

All the PWC Commanding Officers are "out and about". In most cases they seem to have some ability for public relations. They know their customers well and they visit them on a regular basis. In many cases skippers know more shop personnel by their first names than do individual department heads. I would agree that the commanding officers are not necessarily micro managing but are managing by walking around. On the other hand, the excellent PWCs have more levels of the management team managing by walking around. This goes back to the relationship, that both exists and is perceived, between management and shops personnel. The more managers are managing by walking around the closer the relationship there appears to be within the department.

6. "Stick to the knitting...."

There was no differentiating characteristic that I could see in terms of the various PWCs staying close to the business that is identified by their mission statement.

Some PWCs are considering a variety of product lines such as operational support trailers, communication systems, and energy production. Most of the product lines require similar worker skills as is available at the PWC. Most senior managers felt that as long as the new products are not taking PWC manpower away from the PWCs' basic mission there is room for expansion into new areas. It was also mentioned that the new product lines needed to be in areas within the expertise of the PWC.

7. "Simple form, lean staff...."

Again, there were no differentiating characteristics in terms of organizational structure or staffing. This lack of differentiation may rest in the fact that until 1983 PWCs were required to be alike. Over time organizational structures may change to accommodate the specific needs of customers and the PWC.

From the standpoint of an effective organization an interesting point is made in "The Efficient Organization" by S.W. Becker and D. Neuhauser:

...for every environmental state there is an optimal organizational structure .... (Ref. 7: p.51)

In terms of organizational creativity J.L. Hayes in his book "Memos for Management" takes an excerpt from the Peter Drucker book "Managing in Turbulent Times"

Fundamentals do not change. But the specifics to manage them do change greatly with changes in internal and external conditions. He also speaks of the necessity of management being able to adapt to sudden changes and to avail itself of new opportunities. The message is clear: Management must stay flexible. (Ref. 8: p.25)

With PWCs trying to run the business more effectively there are indications that the organization structure will change somewhat over time. Part of the key will be for the PWC executives to evaluate what the PWC environment is and determine if the organization structure is able to adapt to changes in terms of the short and long term objectives of the PWC customers.

8. "Simultaneous loose-tight properties...."

Because of the needs of the customers this concept has become one where all PWCs have capitalized on the cost effective aspects of a PWC while at the same time providing the needed customer attention that can only be provided by a decentralized aspect of the organization. This concept has different names but what it basically provides is a mini public works department within the PWC that is assigned to a specific customer, usually because of the size of that customer. In this decentralized part of the PWC the customer reaps the benefits of the cost effectiveness of the centralized PWC yet has the attention, or customer service, that they feel they deserve.

Those interviewed indicated that the responsibility and authority that they held, as well as that of their peers and subordinates, is an indication that autonomy is pushed down to the lowest possible level in their PWC. There were observed differences between the PWCs in a centralized versus decentralized aspect of the PWC organization. Even though there were differences there was not a definite "best" way observed of when to centralize and when to decentralize the PWC.

#### B. ADDITIONAL CHARACTERISTICS OF EXCELLENCE

I now discuss the characteristics of excellence that I found that do not fit readily into any of the eight attributes that Peters and Waterman found.

## 1. Management skill level and leadership

There were some very talented people at all the PWCs. Many are well-educated while others have climbed the ladder of experience. The difference between the PWCs is in how they have sorted through the variety of people that they have and made promotions. Junior and senior PWC personnel at the control PWCs, and who have been a part of the NAVFAC defined excellent PWCs, indicated that there is less "dead wood" at the excellent PWCs than at the control PWCs. At all levels of the control PWCs there was criticism of personnel in some key positions. The criticism centered around leadership skills. These skills apparently did exist at one time, but were lost because of lack of use and/or direction from superiors. A comment I received several times at the control PWCs was:

It seems like some department heads are waiting for someone to tell them what they should do next.

If one takes into account the old saying that leaders lead by example, then an organization will have difficulty fostering excellent managers when the organization is not providing excellent leaders. Also, in discussing excellent leaders, a comment I received from some middle managers at one of the control PWCs was:

We have three or four excellent managers, but they cannot do it alone. If they were to leave the PWC I don't know what would happen.

Within the control PWCs some of the very talented people that have progressed through the ranks are lacking specific management skills needed in their positions. Areas of particular weakness were in the budget preparation process and planning. The indication is not that managers do not know how to submit a budget. What was indicated was that managers were not developing their budgets with sound

support. There was little planning in looking at what should be brought into the budget. Many managers are not doing any, or very little, risk analysis of potential crises areas. The main focus is what the department or organization will need in the coming budget year. A possible consequence of this lack of planning is missing the opportunity to prevent crises situations that will arise.

Generally the excellent PWCs have more managers that are better leaders and managers. In some cases this may be due to several reasons.

a. Turnover

At one control PWC turnover was defined by management to be a significant problem. It was stated that with a high level of turnover in both civilians and military there is a loss of corporate knowledge at the more senior levels. The problem at the lower levels of the organization is that if supervisors are turning over at a high rate the lower levels lose confidence in the organization and are not able to emulate the leadership qualities in a supervisor they respect.

b. Cost of living

It was stated that the current civil service system can make it difficult to attract good management in certain high cost areas. One control PWC that was visited has this problem. The PWC has a difficult time recruiting good people in certain managerial areas because the pay scale is not competitive with the private sector in that locale. The pay scale is also not competitive enough to draw civil service people from low cost locales.

c. Training

Those in the area of training say that they see a correlation between who is considered the better managers and who is aggressively seeking additional training and

education. They do not feel that training has all the answers but effective training can provide a sound foundation. One excellent PWC has the training organization as a specific part of their organization. The PWC keeps statistics on who has been to what training and who has not. The training people indicate that there is an indication, by these statistics, that the better managers tend to continually sharpen their skills through education and training. At the control PWCs there is a less aggressive attitude in people about seeking training on their own time.

## 2. Communication

The interviews indicated to me that without question the excellent PWCs have more and better communication at all levels of the organization. Some of this communication takes place in an informal setting around a lunch table where departmental situations, goals, problems, and focus are discussed. In listening to the various interviewees it was amazing to hear what was accomplished at these ad-hoc meetings.

As another example of the importance of internal communication, Georgopoulos and Mann in their study found that communication increases the understanding and acceptance of rules, helps to clarify problems, promotes understanding, and transmits ideas and suggestions. They also stated that effective day-to-day communication, between superiors and subordinates about the work process and work problems, provides a key mechanism for coordination. (Ref. 7: p.82)

## 3. Management Information Systems (MIS)

No one indicated that they were happy with the MIS system that presently existed at their PWC. Everyone agreed that the information asked for and received by managers is crucial in doing business. The excellent PWCs are looking

for innovative ways of providing the needed information to their managers in a timely basis. In their search they are developing MIS and management control systems (MCS) that are more useful and specific to their needs. The excellent PWCs are also asking their managers what they need to properly manage their part of the organization. With that information the centers are putting effort into satisfying those needs. The control PWC managers are having to fend for themselves to determine what their needs are and what will provide the most effective MIS and MCS systems. As an example of the importance of financial management information an excerpt from a study done by A.M. Woodruff and T.G. Alexander is provided. This study compared ten successful small metal-fabricating companies with ten similar companies that went bankrupt.

They found no single cause for the business failures. Rather, each unsuccessful firm had more than one problem. However, inadequate or misleading records probably caused more trouble than any other error of management....

Serious losses could later be traced to series of little leaks, each one seemingly insignificant dribble, but collectively equivalent to a substantial breach in the financial dike. Management was unaware of these leaks at the time because records were missing, were too cumbersome for quick analysis or were too long delayed in reaching the proper desk.

Disaster awaits uninformed management which acts without adequate records. Information to meet the needs of those who use it must be simple, clear and promptly available....

None of the unsuccessful firms had really good financial records and nine of them had extremely poor records, so that management lacked navigational aids through the business shoals and mudbanks. All of the ten successful companies, in contrast, had well informed management, kept complete records, and made full use of the records that were kept. (Ref. 7: p.83)

The PWCs all have a significant amount of MIS information available to them. The problems are in finding the information in a form that is useful to a manager. Again, the excellent PWCs are doing a better job of

providing the information in a format that is more useful, or else they are educating the managers on where the information exists in present reports.

#### 4. Looking on the outside

Those interviewed at the NAVFAC level indicated that judging PWC effectiveness is difficult in terms of the most cost effective method of providing customer satisfaction. At the PWC level I found that the excellent PWCs are looking outside their own organizations to develop the most cost effective method of providing service to their customers. Not only are the excellent PWCs looking at how other Navy PWCs are doing the business, they are also working with other similar (non DOD) service organizations. One excellent PWC went to the Sears Corporation and met with their service personnel to discuss how they handled emergency service. After numerous meetings both groups came away with good ideas to try and use in their own organizations. This same idea could very easily be expanded into a variety of areas such as city and state public works organizations.

The excellent PWCs understand who the competition is. As put by one business manager:

PWCs are not competing against each other in terms of business. The competition are those private sector (non-DOD) businesses that can provide a similar service by way of a contract with a customer. To effectively compete with the competition the PWC needs to see what the competition is doing in terms of innovative ways of doing the business.

#### 5. Facilities

It has been shown that productivity can be affected by the facilities that an organization has in which to conduct its business. I observed two extremes of facilities available for the PWC. In one case the center was using buildings that were designed for warehouse type storage space. In another case the center had facilities that were

specifically designed for the shop work involved in a PWC. I also observed centers that were between these two extremes. Those interviewed, that were asked about the affect of facilities, indicated that the more conducive the PWC facilities are for providing the most effective shop work and management the more likely the PWC will be successful.

#### 6. Work Ethic

One of the biggest differences seen at the PWCs was in the area of organizational team work. The excellent PWCs have a more obvious work ethic that focuses around organizational team work. They know that they are good and to them the most important aspect of their job is to get the job done and to do it right the first time. This may not necessarily happen one hundred percent of the time but there is a significant tendency for this to be the norm rather than the exception. Workers feel an obligation to do the best job possible because of the reputation that they feel they have. This importance of reputation is prevalent throughout the organization. Part of this work ethic is tied up in the social aspects of the geographical location of the PWC. As stated by J.L. Hayes:

Employees' work attitudes are a function of both where they have been and where they are. (Ref. 8: p.18)

This concept of team work also plays a role in the communication that is going on at various levels of the organization. The more team work that you see the more communication that is taking place throughout the organization.

Resistance to change also seems to be part of the aspect of team work. According to managers at the excellent PWCs the more team work there is at the worker level the less resistance to change there is in areas that effect these workers. These managers indicate that part of the

reason for less resistance is due to better flow of communication at various levels of the organization that are effected by the change. The workers felt that that they each had an opportunity to play a role in the development of the change before it is implemented.

Another aspect of work ethic was accountability. I observed that at the excellent PWCs the workers have a better understanding of their accountability as compared to the control PWCs. When the "buck" could be passed easily, there was a loss of accountability observed. Along with this I observed a less positive team work ethic because everyone was pointing the finger at someone else. This observation was also provided by personnel that had worked at both an, NAVFAC defined, excellent and a control PWC.

#### 7. Excellence in Resource Management

Depending on the level that this question was asked one received almost as varied answers as was asked. The following was consistently indicated as crucial for the success of the PWC:

- Business Managers cannot allow themselves to get ground into the day-to-day activities. They must keep their focus on the out years. The Business Managers' planning horizon should be 10-15 years. Department heads should also avoid getting too caught up in the day-to-day problems and focus more on the near term to 5 years out in terms of planning.
- All levels of management should be doing appropriate level risk evaluations in trying to establish what will be the "show stoppers" for their own branches, departments, and ultimately the PWC.
- Certain management skills must exist at the appropriate levels. What the appropriate levels are

and what specific skills are needed will have to be established by the PWC executives. Some key skills identified as necessary for mid-level managers and executives are:

1. Ability to develop a capital investment plan.
  2. The ability to do cash flow analysis.
  3. The ability to do capital budgeting.
- o Financial management at the PWC must be proactive rather than reactive.
  - o The accounting information provided by the comptroller shop must be accurate, timely, and useful.
  - o Department, Division and Branch heads have to develop the ability to ask the right questions regarding budget submissions. Managers at all levels must have confidence in the supporting documentation for their budgets. Without sound support of the budget submission credibility will be lost. A comment received sums this aspect up rather well: "The budget is simply a reflection of how well someone has planned."

The next chapter will provide my closing comments and recommendations.

## V. CONCLUSION AND RECOMMENDATION

The purpose of this thesis was to identify some of the elements of excellence in PWCs of the Navy. To many in the world of PWCs what they have just read may be a statement of the obvious. To others, I have provided some elements that they had not considered in terms of their own organization and this concept of excellence. I did not spend a lot of time discussing the hypothetical or theoretical aspects of the elements that were identified in Chapters III and IV. I have observed that the longer the documentation of a study the less it is used, unless use is mandated by higher authority. Obviously my hope is that this thesis will be used in the world of PWCs. Those that consider this document useful should consider the points of excellence identified and look at their own organization and ask themselves if their part of the organization is a reflection of excellence. If not, you should ask yourself, what role are you playing in developing excellence in yourself, your work team, shop, branch, division, department, and ultimately your PWC? The PWC belongs to each and every employee that works there. The success of that center is a function of all the employees not just those at the top, middle or bottom.

One last model I would like to take a look at is taken from the follow on to "In Search of Excellence" and that book is "A Passion for Excellence" by Thomas J. Peters and Nancy Austin. As shown in Figure 5.1 there are four elements of the model for excellence. The elements are: (Ref. 10: p. 5)

- \* Care of customers.
- \* Constant Innovation
- \* Turned on people

\* Leadership



Figure 5.1 The Peters and Austin Excellence Model

The focal point of the model is leadership. Peters and Austin have this to say about leadership:

Leadership means vision, cheerleading, enthusiasm, love, trust, verve, passion, obsession, consistency, the use of symbols, paying attention as illustrated by the content of one's calendar, out-and-out drama (and the management thereof), creating heroes at all levels, coaching, effectively wandering around, and numerous other things. Leadership must be present at all levels of the organization. It depends on a million little things done with obsession, consistency and care, but all of those million little things add up to nothing if the trust, vision and basic belief are not there. (Ref. 10: pp. 5-6)

The reason I consider this model useful is because it points out the obvious elements and their

interrelationships. Also, all the elements of excellence discussed in Chapters III and IV can be boiled down to these four elements that Peters and Austin identify.

I would suggest an enhancement to the Peters and Austin model by encircling it with organizational adaptiveness. Figure 5.2 is what I mean.



Figure 5.2 The Enhanced Peters and Austin Model

The reason for adding this to their model is explained in the following:

The surviving organization is the adaptive organization. The adaptive organization is one that is in touch with the outside world via living data. All four of the variables-two that you would expect (customers and innovation) and two that are novel (people and leadership)-are focused on sensing change and adapting to it, not via great leaps and genius paper plans, but via constant contact with and reaction to people on the part of every person in the organization. (Ref. 10: pp. 6-7)

I suggest that to be successful the PWC must adapt to:

- \* Meet the needs of their customers
- \* Effectively implement innovation
- \* Meet the changing needs of the PWC employees.

The importance of this aspect within PWCs can be seen in what is emphasized in the PWC corporate improvement plan. A key aspect of the success a PWC is its ability to maintain constant contact with and reaction to PWC customers on the part of every one in the PWC organization.

Finally, I suggest that if the PWC organization maintains its current course, with emphasis on care of customers, constant innovation, turned on people at all levels, effective leadership, and an adaptive organization, there is a potential of the PWC organization being considered one of the best organizations in the Department of Navy, if not all of the Department of Defense. The realities of this potential will be based on whether or not the whole PWC organization can "energize" itself to meet the needs of the PWC customers.

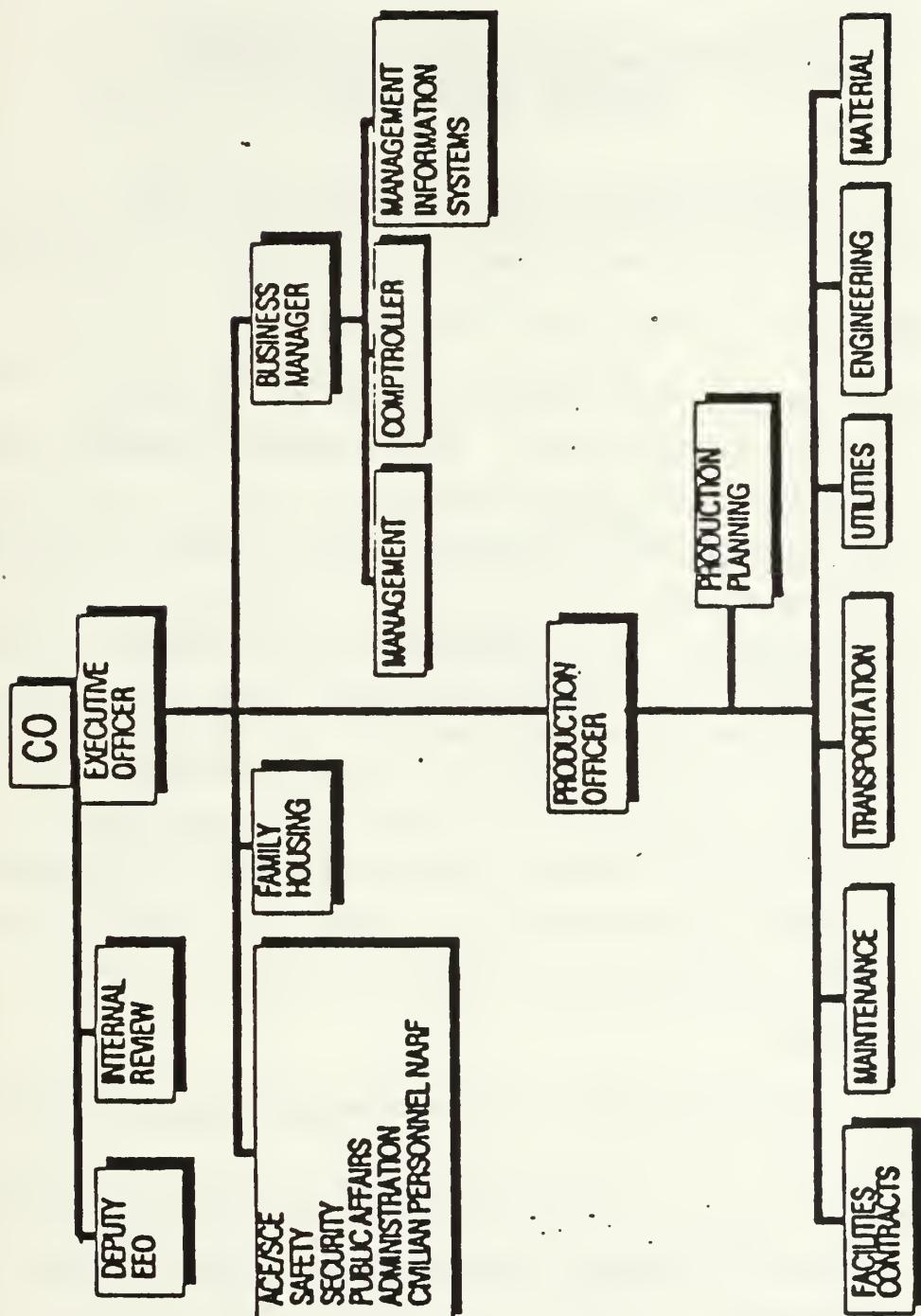
Based on the interviews, the only recommendation that I would make would be for PWC Commanding Officers to consider the business side of the PWC as a possible billet opportunity for junior officers. All the PWCs tend to focus their junior officer strength at the production side of the

center. With the establishment of Business Managers and the professionals in those positions, I suggest that this would be an excellent opportunity for junior officers with, financial management training or background, to learn the "business" aspects of the PWC as well as provide some assistance to the Business Manager. If we are going to try to run PWCs like a business then what better way is there of enhancing the experience of the future PWC Production Officers, Executive Officers, and Commanding Officers.

I hope I have provided you with some interesting and useful information. This concept of excellence in organizations is not only interesting but a necessary consideration as the standard for doing business if the business is to remain successful. In a few years the many changes within the PWC organization will be more obvious as to their success and maybe someone will do a follow-up study of excellence in the PWCs of the United States Navy.

## APPENDIX A

### PUBLIC WORKS CENTER ORGANIZATION CHART



APPENDIX B  
PETERS AND WATERMAN'S INTERVIEW GUIDELINES

ORGANIZATION AND INNOVATION SURVEY  
SUMMARY DESCRIPTION

PURPOSE

To understand how prominent corporations are organizing to remain innovative and competitive in dynamic markets.

COMPANIES

Target companies for survey (around 30) include:

- \* Large multinational corporations (e.g., Xerox, Westinghouse, Brown Boveri)
- \* High-technology companies (e.g., DEC, 3M, Texas Instruments)
- \* Companies in fast-growing markets (e.g., McDonald's, Johnson & Johnson)
- \* Companies marketing products with short life cycles (e.g., Proctor & Gamble, Revlon, Atari)
- \* Large industrial goods manufacturers (e.g., Caterpillar Tractor, Mitsubishi Heavy Industries)
- \* Other organizations of interest (e.g., Exxon, BASF).

TOPICS COVERED

Survey is quite broad, but emphasizes innovation-related issues - e.g.,

- \* How temporary "ad hoc" organizations (such as task forces, project teams) are used to start new programs

- \* How new ideas are generated in the company (whether in R & D labs or on production floor)
- \* How recruiting and management development systems work to stimulate entrepreneurship, innovation, and responsiveness
- \* how company uses reorganizations to change "the way things work around here."

### SURVEY OF ORGANIZATION AND INNOVATION

#### PURPOSE

To understand how prominent corporations are organizing to remain innovative in dynamic markets.

#### SURVEY ORGANIZATION AND FOCUS

Interview questionnaire is organized in seven different sections. Following some introductory questions, we will address six aspects of organization that, we believe, impact strongly the capability of companies to develop and sustain effective innovation. These areas are:

1. Structure
2. Systems
3. Staff
4. "Superordinate goals" or overriding company values
5. Style
6. Skills.

Topics of special interest include:

- \* How company "senses" and "absorbs" changes in its environment (through marketing, research, sales reports, etc.)

- \* How new ideas (e.g., new products, process improvements, new strategies) are generated and communicated throughout the company
- \* How temporary "ad hoc" organizational structures and other entrepreneurial elements are used to shift attention of managers and commit resources to new programs.
- \* How frequent and extensive are corporate reorganizations
- \* How recruiting and management development systems work to stimulate entrepreneurship, innovation, and responsiveness
- \* How companies have gone about "redirecting" efforts in substantially new directions.

#### INTERVIEWS

Basic request is to interview a senior executive for 2 to 4 hours about organization and innovation. Interviewees should be:

- \* Senior enough to talk authoritatively about reorganizations, etc.
- \* Experienced enough with company to answer trend questions (e.g., how different now from 5 years ago?)
- \* People who might enjoy talking about these issues.

#### CONFIDENTIALITY

Only the fact that companies have participated in the survey will be made available to other survey participants or outsiders. Except for McKinsey personnel directly involved, information provided by participant as part of this survey will be used only in aggregated or disguised form with other survey participants or outsiders.

APPENDIX C  
DEPARTMENT OF THE NAVY  
PUBLIC WORKS CENTER  
CORPORATE IMPROVEMENT PLAN

## INTRODUCTION

This plan provides both general direction and specific guidance for the management of the Navy Public Works Centers (PWCs) for the next five years. The plan is dynamic and will be updated at least annually to focus continuous attention on attainment of improvements necessary to fully achieve the situation described in the statement of purpose within five years. The plan will be used as a basis for cost reduction, improved performance and improved communication with PWC customers; as a yardstick to measure PWC performance; and as a framework for PWC management decisions.

## PLANNING PROCESS

This plan is the second in a continuing series and was developed with the assistance of Coopers & Lybrand (C&L), using their strategic planning model. The C&L planning model was developed primarily for private sector entrepreneurial firms, and is thus ideally suited to the PWCs, which operate under the Navy Industrial Fund concept in a buyer-seller relationship with over 2,500 customers. Steps in the planning process are shown in Figure 1.

The plan was developed by a "corporate board" consisting of the nine Public Works Center commanding officers (PWC COs). The corporate board determined that specific operational and customer-oriented information was essential to the formulation of the initial plan. This data was systematically gathered during the situation audit phase in our initial annual cycle of the planning process. Commanding officers of major customer commands made a substantial contribution to the situation audit through personal interviews conducted by the PWC COs. Each year the original situation audit is reviewed and adjusted as necessary to reflect current conditions and input received continuously from customer activities. Based on our analysis of the updated situation audit and our progress to date, we reduced the number of topics in this edition of the plan from four to three. Implementation of the new command relationships for PWCs permitted us to discontinue "Command and Control" as a separate topic. .

The three remaining topics were again addressed in the context of our present operating environment, against our governing assumptions. Strategic decisions were made to select the best ways to achieve specific improvement. Specific, time-bounded goals were developed to improve performance in each of the three areas. The goals identify measurable improvements which must occur in order to fully achieve each "accomplishment". (See page 6 for an example.) The long-term goals were then further elaborated by objectives to be accomplished within the current fiscal year. These objectives serve

as the basis for individual action plans for each PWC and NAVFAC headquarters to define specific actions each needs to take to ensure the objectives are met and that steady progress toward the long-term goals is achieved.

The plan is dynamic and will be updated at least annually. The goals and objectives will be refined as necessary to ensure currency.

#### SUMMARY OF PLAN AND ASSUMPTIONS

The plan focuses on three broad topics: Competitiveness, Customer-Oriented Business Strategy, and Acquisition Strategy. In our original situation audit in the spring of 1986, we and our customers were both clearly not satisfied with current performance. In that situation audit, our customers' perceptions included the following: PWCs were not competitive; our business strategy and product lines were internally focused and not customer-oriented; we did not communicate well with our customers; there was insufficient long-range planning taking place between the customers and the PWCs; we did not take full advantage of some contracting tools available to us; and last, but perhaps most importantly, our customers did not feel PWCs were sufficiently accountable for performance. In our updates of the situation audit for this edition, our customers noted positive trends and some progress achieved under the first edition of the plan, but clearly much remains to be done. Since PWCs are service oriented, customer perception is, in fact, our reality, and we treated it as such in our planning process.

The plan is based on basic assumptions which are reviewed in each annual cycle and form the foundation upon which we construct the plan. The assumptions fall into three broad categories:

The future business environment, i.e., funding profiles and economic pressures.

External controls over the PWCs which are within NAVFACENGCOM control, and external controls over the PWCs which are outside the control of NAVFACENGCOM, but within the control of SECNAV.

External controls, including statutory controls, which are not within the control of SECNAV.

We project that the future business environment for the PWCs will be severely resource constrained and highly competitive. Future funding for the Defense establishment is expected to decline under pressures to reduce the federal deficit and under the controls of Gramm-Rudman-Hollings. As future funding decreases from levels previously planned, the need to apply resources to new weapon systems, expanded operations of the 600-Ship Navy, training and spare parts will result in severely constrained funding for maintenance and repair of the shore establishment.

Severe competition for funding, coupled with an aging physical plant, will challenge all levels of Navy management to properly allocate resources to achieve the maximum return on investment. Pressures to find the lowest cost alternative for every element of facilities support will rise sharply. Capital investments will be urgently needed to modernize and replace both industrial plant equipment and the obsolescent Navy infrastructure, especially utility systems, to assure lowest life cycle cost. Prices for oil, electricity, and other commodities are likely to fluctuate sharply from time to time.

The NIF concept affords the PWCs critically important flexibility in making needed capital investment and provides excellent visibility of true total costs — information which is essential for both the PWCs and the customer activities to operate in a prudent and businesslike manner. The plan therefore assumes that the PWCs will continue to operate under and take full advantage of the business flexibility of NIF.

NAVFACENGCOM, in discharging its responsibilities for technical control of PWCs and as PWC Activity Group Manager under the Navy Industrial Fund, is fully committed to improving the cost effectiveness and the quality of service provided by the PWCs. Any changes found to be needed in operating controls which are within NAVFACENGCOM control are therefore assumed to be readily implemented. Maximum authority and responsibility will continue to be delegated to the lowest possible levels, with appropriate control mechanisms to ensure accountability. The only constant to be maintained at the NAVFACENGCOM level is a commitment to continuous incremental improvement in performance leading to excellence.

Controls beyond NAVFACENGCOM's but within SECNAV's authority impact the operation of PWCs in procurement of real property maintenance materials, in contracting, and in financial management. We assume that relief from some of these regulatory controls can be obtained.

We recognize and accept the need for higher level financial controls. However, we feel strongly that operating controls must be tailored to the type of service delivered. Some controls may not be appropriate for application across all the NIF activity groups. Therefore, we assume that financial guidance, work year constraints, project order acceptance rules, etc., will be tailored to the individual NIF activity group, the services provided, the specific customer needs, and the relevant economic conditions. Our plan is developed for a corporate business group operating in a businesslike manner without undue controls. We must afford our commanding officers sufficient management flexibility to make prudent business decisions if we expect to hold them personally accountable for the cost effectiveness and performance of their commands.

Statutory controls over the Navy and the PWCs cannot be easily changed. In areas where statutory relief is necessary, our strategy will be to request necessary relief and, in the interim, to take full advantage of whatever flexibilities the current law may provide.

## SUMMARY OF TOPICS

Topics are presented in the plan as statements of accomplishment, such that if all actions in the plan were completed, the statement of accomplishment would then reflect the current situation. In general, we have adopted FY-1985, the fiscal year just prior to our initiation of this long-range, business planning process, as our baseline year for measurement of improvements in performance.

Under the topic of Competitiveness, performance indicators will be used by PWC managers at all levels to gauge their performance, to establish a common foundation for customer expectations, and to permit rational decisions on the least-cost alternative for providing necessary services. Five individual goals were established to address competitive position, productivity, cost, and response time. At the heart of this topic are two ambitious goals: to improve direct labor productivity by 25 percent, and to cut total cost for maintenance and repair services by 25 percent. For full attainment of the competitiveness goals, we will need relief from selected regulatory controls on procurement of real property maintenance material, and some adjustments in the NIF rate setting process.

The topic of Business Strategy focuses on developing a comprehensive, cost-effective mix of in-house and contract performance to ensure the PWCs are positioned to provide the support the customers need. Specific attention is given to improved customer relations, including accurate and timely feedback to the customers on job status. Our success in this area is measured by customer satisfaction.

Under the topic of Acquisition Strategy, we will ensure that each PWC has adequate contract authority to meet the customers' needs, that quality of contractor performance is improved, and that maximum use is made of the various contract vehicles and techniques currently available in the Federal Acquisition Regulation (FAR). Full attainment of the goals in this topic requires changes in current contract law; however, major improvements can be achieved even without legislative relief.

The topic of Command and Control that was in the FY-87 Corporate Improvement Plan has been discontinued. The new command structure called for in the plan has been fully implemented. The PWCs now receive military command and coordination control from the local Naval Base Commander or other area commander, with technical control and NIF Activity Group Manager responsibilities being exercised by Commander, Naval Facilities Engineering Command. The COMNAVFACENGC~~OM~~ technical control is delegated to Commander Pacific Division, Naval Facilities Engineering Command, for the four Pacific Area PWCs.

## TOPIC ONE: COMPETITIVENESS

### ACCOMPLISHMENT: PUBLIC WORKS CENTERS WILL BE COMPETITIVE WITH ALL OTHER SOURCES OF PUBLIC WORKS SERVICES

The PWCs provide a wide variety of products and services in nine distinct economic regions. Our customers often have difficulty comparing the cost and level of service provided by the PWC to the cost and level of service provided by either commercial sources or by other Navy sources, such as public works departments. This difficulty is due, in part, to the "structural" differences between NIF and appropriation accounting. Our interviews of our customer commands clearly demonstrated a lack of knowledge of the NIF system and a related lack of confidence in it. In our customers' view, our attempts to compare PWCs with private sector firms were generally clouded by questions of profit, contract administration expenses and level of support provided. In PWC product lines where customers do have a reasonable basis for comparison between PWCs and the private sector (e.g., vehicle rental and emergency service calls), they usually see the PWCs as competitive. We need to have additional performance measures and other methods that enable us, and our customers, to accurately compare PWCs with other providers of like services.

In the majority of cases where the PWCs have faced head-to-head competition with the private sector through the OMB Circular A-76 process, PWCs have been able to cut costs and demonstrate cost and service superiority. For example, in 1984, PWC vehicle maintenance costs were 28-30 cents per mile and vehicle availability was 92 percent. Under A-76 cost study procedures, the PWCs tightened their belts and retained this function in-house with a bid of 10 cents per mile and 95 percent availability. Actual performance over the past three years has exceeded these targets. These A-76 studies were thus useful in demonstrating our competitiveness to our customers.

During the A-76 program we developed a structured methodology for comparing our in-house performance with private sector firms to set competitive performance levels. This process provided a yardstick by which we could assess our performance and determine where improvements were needed and the extent of improvement needed for us to compete effectively in the A-76 bid box. This same technique can be used in all other areas of PWC operations. The competitive pressure constantly applied to private sector firms forces them to continuously develop better methods and equipment. Setting PWC performance goals based on private sector performance will incorporate these private sector competitive pressures into the PWC management system.

Our principal thrust to achieve competitiveness is to fully develop and exploit methods to measure our performance against other providers of similar services, both on the local and corporate levels, and meet or beat the competition in every product line. In some cases the most competitive method to accomplish a task will be to "subcontract" to the private sector. Continuous incremental improvement, constant monitoring of our competitive position and prudent business decisions to use the least cost, most effective

method will help PWCs become the premier provider of public works services. A competitive cost and performance posture, which can be effectively demonstrated to our customers, will make the PWCs the service provider of choice instead of mandate. We have established five major goals in this area. The baseline year for the goals in this topic is FY85, unless otherwise noted.

### Goal 1

#### Achieve and demonstrate overall competitive superiority with public and private sources of facility services by 1991.

The PWCs will implement a comprehensive set of performance indicators to evaluate PWC performance, and establish a method to equate these indicators to various other service providers. Indicators developed along product lines will allow rapid comparisons to be made for each type of service provided. The product line indicators reflecting our "competitive position" will be updated annually to form a dynamic indicator of competitiveness in the current market. This continuous infusion of competitive pressure by comparison with the private sector will help to ensure steady improvement in cost and productivity, and highlight quick payback capital investment opportunities. The performance indicators and competitive position indicators will be used in many portions of the business plan for comparison, trend analysis and identification of impediments. We will make maximum use of incentives to enhance productivity and ensure that PWCs are a preferred place of employment. We will provide training to meet site specific requirements of each PWC's work force. We will provide a mechanism at each site to assess the impact of training on productivity and job satisfaction.

#### FY88 Objectives:

1. By October 1987, each PWC will submit to COMNAVFACENGCOM its top five impediments to competitiveness listed in priority order. This submission must include a clear definition of the adverse impact of these impediments and recommended means to measure performance improvement, if relief can be obtained.
2. By December 1987, NAVFACENGCOM will issue the performance indicators and competitive indices for FY-85 and FY-86 and establish specific improvement objectives for all areas not shown to be competitive.
3. By December 1987, all PWCs will have performance indicators in place for maintenance, production control and material functions.
4. By January 1988, NAVFACENGCOM will submit to the controlling authority formal requests for removal of the highest priority impediments to competitiveness.
5. By March 1988, NAVFACENGCOM/PWCs will have roll-up performance indicators in place for maintenance, production control and material functions.

6. By February 1988, PWC San Diego will report the effect on productivity of their gainsharing test program. The Board of Directors will evaluate progress and potential for further implementation.
7. By June 1988, each PWC will conduct a technical training needs assessment and NAVFACENGCOM will provide a site specific program for PWC use. This program will include training required for new technology and an affordable alternative to the apprenticeship program.
8. By August 1988, NAVFACENGCOM will report trends in performance indicators by PWC and for the overall Corporation.
9. By September 1988, each PWC will submit to COMNAVFACENGCOM a plant modernization plan designed to enhance competitiveness in areas where indicators reveal that an opportunity exists.
10. By September 1988, each PWC will have performance indicators in place for utilities, engineering, acquisition, and transportation.

## GOAL 2

By October 1989, improve PWC productivity by 25 percent in comparison to the FY-1985 baseline.

Recent experience at all PWCs indicates that major productivity gains can be made in terms of direct labor hours, response times, and material procurement lead times and material costs. The Navy has embraced a major productivity initiative called Action 88. Our productivity improvement goal supports Action 88 and the overall Navy productivity program.

### FY88 Objectives:

1. By June 1988, all PWCs will ensure productivity goals are included in performance evaluation criteria against which personnel will be rated, thereby holding every member of the work force, from the commanding officer to the laborer, personally accountable for his or her performance.
2. By May 1988, all NIF PWCs will complete a structured analytical review of their "overhead" functions and report percentage savings made on both labor and non-labor categories.
3. By September 1988, PWC Yokosuka will complete a structured analytical review of its "overhead" functions and report percentage savings made in both labor and non-labor categories.
4. By January 1988, all PWCs will establish local productivity improvement targets by commodity and establish a system to track performance.

5. By June 1988, all PWCs will report productivity improvement and modify A-11 Budget submissions accordingly.

### Goal 3

Reduce controllable cost of public works support by 25 percent by January 1990, without reducing quality.

This goal addresses total job cost, or total cost of service, in contrast to the labor component addressed in the previous goal, and provides additional emphasis on cost reduction. Achievement of the goal will require support from the Comptroller of the Navy in rate decisions, relief from regulatory constraints, and procedural streamlining. Performance indicators developed in the first goal will be used to establish the baseline costs and to drive specific action plans to reduce total cost of service. SECNAVINST 7600.9, Subject: Manage to Cost, will be implemented to more clearly identify the true cost of the major products and services provided by the PWCs. Accuracy of overhead and support cost allocation will be a principal focus of this effort.

#### FY88 Objective:

1. By October 1987, NAVFACENGCOM will provide the commodity cost structure for future management use and reconciliation with baseline data.

### Goal 4

Complete 80 percent of all facilities maintenance and alteration jobs within 90 days by October 1990, without reducing quality.

This goal addresses those facilities tasks that are larger in scope than an emergency service call. Major overhaul and streamlining of the PWC internal work control process will occur, to eliminate unnecessary steps, reduce paper work, automate the process, and focus responsibility and accountability at each organizational level. Material procurement constraints will be selectively adjusted or eliminated to support this improved response time. For the long term, we will evaluate using private sector suppliers as both our inventory manager and issue point to improve responsiveness and reduce costs (the "just-in-time delivery" concept). To the extent this concept can be implemented, we will be able to eliminate inventory of routine material now procured and held by the PWCs and all the associated overhead cost for inventory management. Increased use of innovative contracting methods is so essential to attainment of this goal, it is treated as a separate topic with its own set of specific goals. (See the "Contract Strategy" Topic.) We will conduct a cooperative effort to jointly plan, with our customers, the work load given to the PWC with the goal of leveling the demand peaks. Progress will help us reposition our resources and dampen the surge in backlog at the end of the fiscal year, which now hampers our responsiveness to our customers' need at the beginning of each fiscal year.

FY88 Objective:

1. By November 1987, each PWC, in cooperation with customers, will implement mechanisms to encourage level work load input.

Goal 5

By October 1990 implement a management information system that fully supports PWC operations.

The PWCs will charter a MIS steering committee to continually assess information system (MIS) needs, both at the individual center and at corporate level. We will seek available systems to satisfy those requirements, either through commercial procurement or use of existing government systems. In-house systems development will be minimized. Cost effective use of new technology and local innovation will be encouraged within the bounds of the overall MIS plan.

FY88 Objectives:

1. By January 1988, NAVFAC will roll out to all PWCs three "Fast Track MIS" initiatives for enhanced management efficiency and PWC productivity.
2. By May 1988 NAVFAC will complete development of an integrated MIS plan which supports PWC business needs and establishes the baseline for future MIS decision making.
3. By July 1988 the MIS steering committee will report to the corporate board its progress against the plan and recommend adjustments in approach as necessary.

## **TOPIC TWO: CUSTOMER-ORIENTED BUSINESS STRATEGY**

### **ACCOMPLISHMENT: DEVELOP AND IMPLEMENT AN EFFECTIVE CUSTOMER-ORIENTED BUSINESS STRATEGY**

Each PWC, as a service organization, must continually review its product lines to ensure the customers' needs for fleet and family support are satisfied. The PWCs will not develop product lines outside their mission. The PWCs will ensure that customer considerations are heavily weighted in all product-related decisions. The situation audit revealed that some customer activities are confused about the respective responsibilities of the PWC, the OICC, and EFD. To alleviate this confusion, and improve customer relations, the PWCs will provide "one-stop shopping" for all facilities support, except execution of military construction.

The basis of budgeting for facilities maintenance is the Annual Inspection Summary. The customers and PWCs both believe that although the original AIS concept was sound, it does not fully meet today's need. A sound facilities management program should include maintenance, utilities, transportation, engineering, and environmental requirements, and should reflect changes in work load and mission. Cooperation between the customers and the PWC in the development and execution of multi-year facility support plans will greatly benefit both parties. The PWC will use the plans to define its service delivery strategy to meet customer needs, as identified by the jointly developed multi-year plan. Better long-range planning for facilities support through good multi-year plans will benefit the claimants in programming and budgeting and will provide better support to PWC customers.

### **Goal 1**

By October 1988, PWCs will be self-contained business entities to accomplish their mission and will refine their product lines by December 1990.

The PWCs will have the responsibility and authority to handle all facility-related support requirements, except execution of military construction projects, and will provide one-stop shopping for all the customer's needs. This does not imply that the PWC must always accomplish all the work itself. Depending on the specific situation, geography, etc., a particular PWC may forward the request to the appropriate execution agent, such as an OICC or EFD, but the customer will be able to depend upon the PWC as a single point of contact for all facilities services. To the maximum extent feasible, the PWCs will move as rapidly as possible to become fully self-contained in contracts, engineering, planning and material acquisition, so that the PWC CO has full capability to execute the mission he is accountable for. The PWCs will refine these product lines and become self-contained business entities such that the mission and efforts are focused on the core competencies of facilities engineering. PWCs will strive to transfer functions which can be better provided by others.

FY88 Objectives:

1. By October 1987, the Board of Directors will decide what the PWC principal commodities are.
2. By March 1988, PWCs will formulate and implement actions to transfer any local services better provided by others.
3. By September 1988, NAVFACENGCOM will formulate and implement actions to transfer any corporate service better provided by others.

Goal 2

By March 1989, the PWCs will develop comprehensive, five-year facility support plans for all major Navy customers, and by March 1990 will develop plans for the remaining customers.

The PWCs will augment the current Annual Inspection Summary (AIS) program with a comprehensive, five-year facility support plan. The plan will provide information to satisfy the current AIS requirement, plus all other PWC facility support and product lines. The five-year plan will include, as a minimum, an automated five-year maintenance planning capability, five-year special projects program, and total definition of other customer requirements such as utilities and transportation support. The five-year facility support plan has been piloted at a number of sites and the customers have found it beneficial in articulating their facility needs both to the PWC and to their major claimants for programming and budgeting purposes. The standard format developed under the FY-87 Plan will be used. Facility support planning will be funded by O&MN for appropriate customers. Improved long-range planning, done jointly by the customer and PWC, is an excellent way to level the PWC work load, resulting in better response time and effectiveness of PWC support.

FY88 Objectives:

1. By October 1987, NAVFACENGCOM will provide associated Mission Management Funding requirements to PWCs to execute the program.
2. By November 1987, PWCs will brief major Navy activities and request supplemental customer funding if necessary.
3. By March 1988, PWCs will submit to NAVFACENGCOM a phased plan, with resource requirements, to complete the program for remaining customers.
4. By June 1988, PWCs will report progress on completion of the execution plan for major Navy customers.
5. By September 1988, NAVFACENGCOM will advise PWCs of tentative FY 89 and FY 90 funding for facilities support planning.

### Goal 3

By March 1989 achieve a composite customer satisfaction rating of 90 percent.

Our surveys of our customers' perceptions have yielded a broad spectrum of subjective answers regarding their satisfaction with PWC services. Recognizing that the customer's perception is our reality, we must develop a method of measuring that reality, despite its inherent subjectivity. We have surveyed and compiled the individual PWC feedback mechanisms currently being used. Using composite measures of customer satisfaction, we will commence periodic surveys of our customers. We must also pursue other ideas to enhance communications and customer satisfaction, such as direct access by customers to our schedules, management information, job status, and other information. This will require the development of software packages for our customers to access our data base. Each PWC will develop and implement a plan for communicating performance standards, expected costs and performance levels, and services available on a routine basis, using an annual cycle. The objective is to achieve a common understanding with our customers on PWC performance. Achievement of this initiative will also require training and motivation of our work force to provide the balance of quality, cost, and response that our customers expect and can afford to buy.

#### FY 87 Objective:

1. By June 1988 NAVFACENGCOM will provide micro software to PWCs to allow customers to access the PWC MIS and get accurate and timely job status information.

#### FY88 Objectives:

1. By October 1987, PWCs will complete and provide to NAVFACENGCOM the first composite customer rating and provide feedback to all customers.
2. By October 1987 NAVFACENGCOM will distribute copies of current PWC annual reports and customer newsletters for consideration, and incorporation into a comprehensive local plan for communications with our customers.
3. By June 1988, PWCs will complete the second composite customer rating and provide feedback to NAVFACENGCOM.
4. By September 1988 Board of Directors will approve and institutionalize a composite customer rating system.

### Goal 4

By March 1988 establish a well defined and responsive customer relations program.

PWC business success can be achieved only when the customer understands what services the PWC offers and has a clear understanding of the respective roles and responsibilities of the

customer, the PWC, the host command (if the customer is a tenant command), and the major claimant in the approval and funding process. Procedures and organizational alignments must insure the smooth flow of work from requirement definition to execution. Customers need clear and timely information on the status of work and a means to provide feedback to the PWC on quality and responsiveness. There is a clear need for effective communication between the PWC and its customers at the local level and between the major claimant and NAVFACENGCOM (or PACNAVFACENGCOM in the case of CINCPACFLT). There is also a need for systematic assessment and responsive adjustments to customer-identified deficiencies and needs. Information exchange must be automated to the maximum extent feasible and organized so that the Staff Civil Engineer at the customer activity or Activity Civil Engineer at the PWC has the time to act as the customer's public works officer, planning and managing the activity's facilities support, instead of being totally consumed in liaison functions. In short, a complete and comprehensive approach to customer relations will be defined and implemented.

FY 87 Objective:

1. By December 1987, NAVFAC will develop a comprehensive shopping list of actions for PWCs to consider in developing their local plan to improve customer relations.

FY88 Objective:

1. By January 1988, all PWCs will implement a comprehensive program for improved customer relations.

## TOPIC THREE: ACQUISITION STRATEGY

ACCOMPLISHMENT:    ACHIEVE AN EFFICIENT AND EFFECTIVE ACQUISITION STRATEGY

Over the last several years, the means by which PWCs accomplish work has changed from an essentially in-house, government work force, to a combination of government and contract forces. This change has been driven by a number of factors, including cost studies under the Commercial Activities Program, political pressures to reduce the federal work force, and the need to leverage the limited in-house personnel resources by using them as contract administrators. The PWC should be totally objective in determining whether the work is to be accomplished in-house or by contract. The best execution mode should be selected at the time the work is to be done, based on the best business decision in the specific instance.

The traditional approach to contracting, which involves preparing detailed contract documents and advertising each job individually, is not responsive. It simply takes too long. To be more responsive, our approach will be to maximize the use of the alternative contract vehicles which are now being developed, such as open-end multi-trade contracts, or the job order contracting approach pioneered by the Army. These contracts will also provide us a valid basis for accurate comparison of PWC costs and level of service with those of competitive private sector providers. PWCs will build a competent, trained contracting staff to permit them to take full advantage of these new types of contracts and the latitude given by the Federal Acquisition Regulation (FAR). At a pace consistent with the development of our contracting capability, we will press for new flexibility where there is a compelling need.

The A-76 program has yielded significant productivity benefits and has been a major tool to move us toward competitiveness; however, it has not been without cost. A-76 reviews have consumed a great deal of management talent and resources. The A-76 cost study process is also inherently incompatible with our concept of continuous incremental improvement. In an A-76 competition, the government must keep its specific plans for improvement closely held to permit its in-house workers to compete equitably against the private sector contractors who seek to replace them. If our PWCs can demonstrate competitive parity with the private sector without the major expense of an A-76 study, it would be in the Navy's best interest not to proceed with an A-76 study. Conversely, if we cannot clearly demonstrate a competitive position, then we are committed to complete the entire second round of PWC A-76 studies by 1991.

### Goal 1

Develop and execute a multi-year strategy to reduce cost of operation and maintenance of transportation equipment, utilities and real property for PWC customers through an aggressive program of cost comparisons of in-house vs. contract accomplishment.

The PWCs will use the lessons learned from prior A-76 studies, new contracting methods, other initiatives, and the existing performance indicators to determine on a case-by-case basis the best way to execute their mission.

FY88 Objectives:

1. By December 1987, each PWC will establish a method to make explicit, sound business decisions on in-house versus contract accomplishment for work to be performed and put in place an organization and process to do so.
2. By March 1988, each PWC will perform a market survey for each utility commodity to determine least cost alternative methods, such as using third party contracting, cogeneration, purchase rather than generation, or other strategies.

Goal 2

By March 1989, PWCs will acquire the capability to buy materials as necessary to achieve competitive superiority.

By obtaining maximum operating flexibility and relief as required from regulatory constraints and improving material supply procedures, PWCs will achieve the flexibility required to be responsive to customers' needs.

FY88 Objectives:

1. By October 1987, NAVFACENGCOM, in concert with NAVSUP, will develop a POA&M to improve material supply procedures for Pacific Area PWCs to permit them to meet completion goals.
2. By February 1988, each PWC will fully implement the improved material supply procedures.

Goal 3

By 1991 reduce by 25 percent the time between the customer approval of the contract package and the contractor starting work, through in-house efficiencies, and statutory and regulatory changes.

This goal includes two increments of improvements. Some improvement is within the control of the PWCs and will result from streamlining of the contracting process and elimination of functional duplication or unnecessary paper work. Additional improvement can be obtained through statutory or regulatory relief, such as raising the threshold of work which is considered "construction" under the Davis Bacon Act, and changes in the Service Contract Act. If the necessary statutory and regulatory relief can be obtained, substantial improvement can be achieved in responsiveness.

FY88 Objectives:

1. By December 1987, NAVFACENGCOM will permit use of option year clauses on facilities support contracts which include Davis-Bacon wages.
2. By January 1988, NAVFACENGCOM will recommend to OSD wording changes to the Service Contract Act to: a) approve contracting across fiscal years for all contracts; and b) approve area blanket wage determinations.
3. By March 1988, NAVFACENGCOM will issue approval to use an economic price adjustment clause for escalation of materials across option years for all facilities support contracts.
4. By February 1988, the board will select a method to measure the FY85 baseline.
5. By September 1988, PWCs will achieve a 15 percent reduction from the FY85 baseline in in-house contract processing time as measured by PALT.

Goal 4

By October 1989 achieve a 25 percent improvement in quality of contracts, contractors and contractor performance.

This goal requires maximum use of the flexibility which is contained in current FAR contracting language. The PWCs will utilize every option possible to have the best contract specification, seek the best contractors, and enhance inspection services to gain major improvements in the contractor's performance.

FY88 Objectives:

1. By December 1987, all PWCs will acquire and train a staff, sufficient in number and talent, to carry out their in-house contracting strategy.
2. By March 1988, each PWC will award at least one new contract using available alternative contracting methods (JOC, multi-trade, incentive fee, etc.).
3. By February 1988 the Board will select a method to measure this goal, including a definition of baseline.
4. By September 1988, all PWCs achieve a 15 percent improvement over baseline.

## APPENDIX D

### CUSTOMER EVALUATION OF SUPPORT PROVIDED BY NPWC ?????

From: Commanding Officer, Navy Public Works Center (Anywhere)

To: Commanding Officer (Individual PWC Customer)

Subj: CUSTOMER EVALUATION OF SUPPORT PROVIDED BY PWC (ANYWHERE)

Encl: (1) Customer Questionnaire  
(2) Customer Workload Feedback Sheets

1. In the last year, Navy Public Works Centers have made great strides in improving the quality, responsiveness and cost of the customer support services that they provide. I am strongly committed to ensuring that we lead the way. Leaders and workers alike have a renewed spirit and dedication to pleasing you, our customer. We have revised our work methods and streamlined procedures to ensure that you will willingly select PWC (Anywhere) as your preferred provider of facility services. Much work remains to be done, but in the meantime, I need your help.

2. These changes should be reflected in the support that is now being provided. The only way that I can be sure that we are making progress is by involving you and your command in our efforts to improve our support. I am interested in obtaining an honest assessment from you and those members of your staff who normally order service from the Public Works Center. Your evaluation of our recent support and suggestions on where and how that support can be improved are most important to me. I need regular feedback to help me understand how we are doing and to identify/resolve potential problem areas before they become major issues. I do not like to ask for your time, but I feel we must periodically assess our progress. With your active involvement, I am sure that all of us at PWC (Anywhere) can resolve any problems that may arise.

3. We have developed the questionnaire at enclosure (1) to help you tell us how we are doing. We will be asking you to complete this questionnaire on a (fill in the cycle) basis. Your honest appraisal throughout the entire survey will enable me to identify those problem areas that require additional PWC attention. I plan to publish a periodic fact sheet that discusses the compiled results and discusses general topics of interest and trends that will interest all of the commands that we service. Of course, we will continue to provide personalized response to special problems that you may bring to our attention. Workload information that is found in enclosure (2) will help you to identify the amount of support that we have provided. This information is included to permit you to focus on the total support that we provide.

4. This report card is only one means of keeping our lines of communication open. Please feel free to call me at any time with a concern. If I can be of service, please call me at xxx-xxxx.

**1. Facility Maintenance Work**

This category includes all of the work that we do on your building, grounds, paved areas, and miscellaneous structures.

**a. Emergency/Service (E/S) Work**

Small emergency or routine jobs requiring 0-16 manhours that are ordered by telephone.

<input type="text"/>					
1		3		5	N/A

**b. Minor Work**

Medium sized jobs requiring 17-80 manhours.

<input type="text"/>					
1		3		5	N/A

**c. Specific Work**

Larger jobs requiring more than 80 manhours, jobs with long-lead material items, Engineering, or Contract Support.

<input type="text"/>					
1		3		5	N/A

**d. Recurring Work**

Day to day repetitive work like preventive maintenance of your mechanical systems.

<input type="text"/>					
1		3		5	N/A

**2. Utilities Services**

This category includes the major utilities services that we provide to your activity.

**a. Electricity**

<input type="text"/>					
1		3		5	N/A

**b. Steam**

<input type="text"/>					
1		3		5	N/A

c. Water

<input type="text"/>					
1		3		5	N/A

d. Telephone

<input type="text"/>					
1		3		5	N/A

3. Transportation Service

This category includes all of the transportation support that we provide to your activity.

a. Operations Service

Rental vehicles, bus service, crane and rigging service and other services provided by PWC drivers and equipment operators.

<input type="text"/>					
1		3		5	N/A

b. Maintenance Service

Maintenance or repair work that the PWC performs on your vehicles or equipment.

<input type="text"/>					
1		3		5	N/A

4. Engineering Service

This category includes all of the major engineering services that we provide to your activity except design for specific work and contracts which should be evaluated as part of the end product for those categories.

a. Facility Planning Service

Master planning, preparation of special projects and military construction projects, and other planning services provided by the PWC.

<input type="text"/>					
1		3		5	N/A

b. Maintenance Planning Service

Development of maintenance plans for your activity.

<input type="text"/>					
1		3		5	N/A

c. Facility Inspection Service

Control inspection service provided to your activity, and preparation of the Annual Inspection Summary for submission to your major claimant.

<input type="checkbox"/>					
1		3		5	N/A

5. Contract Work

This category includes all of your work that we arrange to have done by contract.

a. Facility Service Contract Work

Contracts for the day to day work that would be recurring work if accomplished by PWC personnel.

<input type="checkbox"/>					
1		3		5	N/A

b. Construction Contract Work.

Contracts for one time maintenance, repair, alteration and construction work.

<input type="checkbox"/>					
1		3		5	N/A

c. Contract Management

All management and inspection services that are provided by the PWC.

<input type="checkbox"/>					
1		3		5	N/A

6. Communications

This category includes everything that is being done to assure effective two way communications between the PWC and your activity.

a. Command Level

Communications between you and the PWC Commanding Officer.

<input type="checkbox"/>					
1		3		5	N/A

b. Staff Civil Engineer  
Communications between the PWC and your Staff Civil Engineer or Facility Manager.

<input type="text"/>	<input type="text"/>	<input type="text"/> 3	<input type="text"/>	<input type="text"/> 5	<input type="text"/> N/A
1					

c. Job Status Feedback  
Routine job status information that you receive.

<input type="text"/>	<input type="text"/>	<input type="text"/> 3	<input type="text"/>	<input type="text"/> 5	<input type="text"/> N/A
1					

d. Problem Response  
Level of response that the PWC provides to specific problems that you identify.

<input type="text"/>	<input type="text"/>	<input type="text"/> 3	<input type="text"/>	<input type="text"/> 5	<input type="text"/> N/A
1					

7. Additional comments:

## LIST OF REFERENCES

1. Naval Facilities Engineering Command Letter, NAVFAC 5224: Serial 15A/0229 to Public Works Center Commanding Officers, Subject: FY-88 Corporate Improvement Plan, 17 Sep. 1987.
2. Haydon, D.M. and Schroeder, K.N., Navy Public Works Administration, Master of Science Thesis, Naval Postgraduate School, Monterey, California, June 1980.
3. Peters, T.J. and Waterman, R. H., In Search of Excellence, Lessons Learned From America's Best Run Companies, Warner Books Inc., 1982.
4. Hickman, C.R. and Silva, M.A., Creating Excellence, Managing Corporate Culture, Strategy, and Change in the New Age, NAL Books Inc., 1984.
5. Bradford, D.L. and Cohen, A.R., Managing For Excellence, The Guide to Developing High Performance in Contemporary Organizations, John Wiley and Sons, Inc., 1984.
6. Ouchi, W.G., Theory Z, How American Business Can Meet the Japanese Challenge, Addison-Wesley Publishing CO., 1981.
7. Becker, S.W. and Neuhauser, D., The Efficient Organization, Elsevier Scientific Publishing Co., Inc., 1975.
8. Hayes, J.L., Memos for Management, Leadership, AMACOM., 1983.
9. Department of the Navy, Naval Facilities Engineering Command, Long Range Plan, Fiscal Year 1988, p. 8, Government Printing Office, DC, 1987.

10. Peters, T.J. and Austin, N., A Passion for Excellence,  
The Leadership Difference, Random House, Inc., 1985.

## INITIAL DISTRIBUTION LIST

	Copies
1. Defense Technical Information Center Cameron Station Alexandria, Virginia 22304-6145	2
2. Library, Code 0142 Naval Postgraduate School Monterey, California 93943-5002	2
3. Professor B. J. Roberts, Code 54Ro Department of Administrative Sciences Naval Postgraduate School Monterey, California 93943	1
4. Professor K. J. Euske, Code 54Ee Department of Administrative Sciences Naval Postgraduate School Monterey, California 93943	1
5. Commander Naval Facilities Engineering Command Naval Facilities Engineering Command Headquarters (Code 15) 200 Stovall Street Alexandria, Virginia 22332	11
6. LT Tom Hollinberger SMC #2446 Naval Postgraduate School Monterey, California 93943	1
7. Mr. Gene E. Kistner 2830 Andy Drive Indianapolis, Indiana 46229	1
8. Mr. James and Paul Baca 2038 Kiva Road Santa Fe, New Mexico 87501	2
9. Resident Officer in Charge Facilities Support Contracts Attn: LT M. E. Kistner U. S. Navy Public Works Center, Subic Bay Box 6, FPO San Francisco 96651-2900	6









Thesis  
K555      Kistner  
c.1      Excellence in Public  
             Works Centers in the  
             United States Navy.

37793

Thesis  
K555      Kistner  
c.1      Excellence in Public  
             Works Centers in the  
             United States Navy.



thesK555  
Excellence in Public Works Centers in th



3 2768 000 76993 9  
DUDLEY KNOX LIBRARY